BLM LIBRARY
88074661

Rio Blanco Oil Shale Project

PROGRESS REPORT 3

GEOTECHNICAL DATA GATHERING PROJECT

HYDROLOGIC PROGRAM
SECTION 1.2

INTERPRETIVE TEXT APPENDIX

To Area Oil Shale Supervisor
United States Geological Survey

by
Wright Water Engineers
for
Gulf Oil Corporation
and
Standard Oil Company (Indiana)

#11343932662 id:88074666 1

TN
859
.C64
R564
no.8
Sect 1.2
App.
1975

PROGRESS REPORT 3

GEOTECHNICAL DATA GATHERING PROJECT

HYDROLOGIC PROGRAM

SECTION 1.2

INTERPRETIVE TEXT
APPENDIX

JULY 15, 1975

TO

AREA OIL SHALE SUPERVISOR
UNITED STATES GEOLOGICAL SURVEY

By

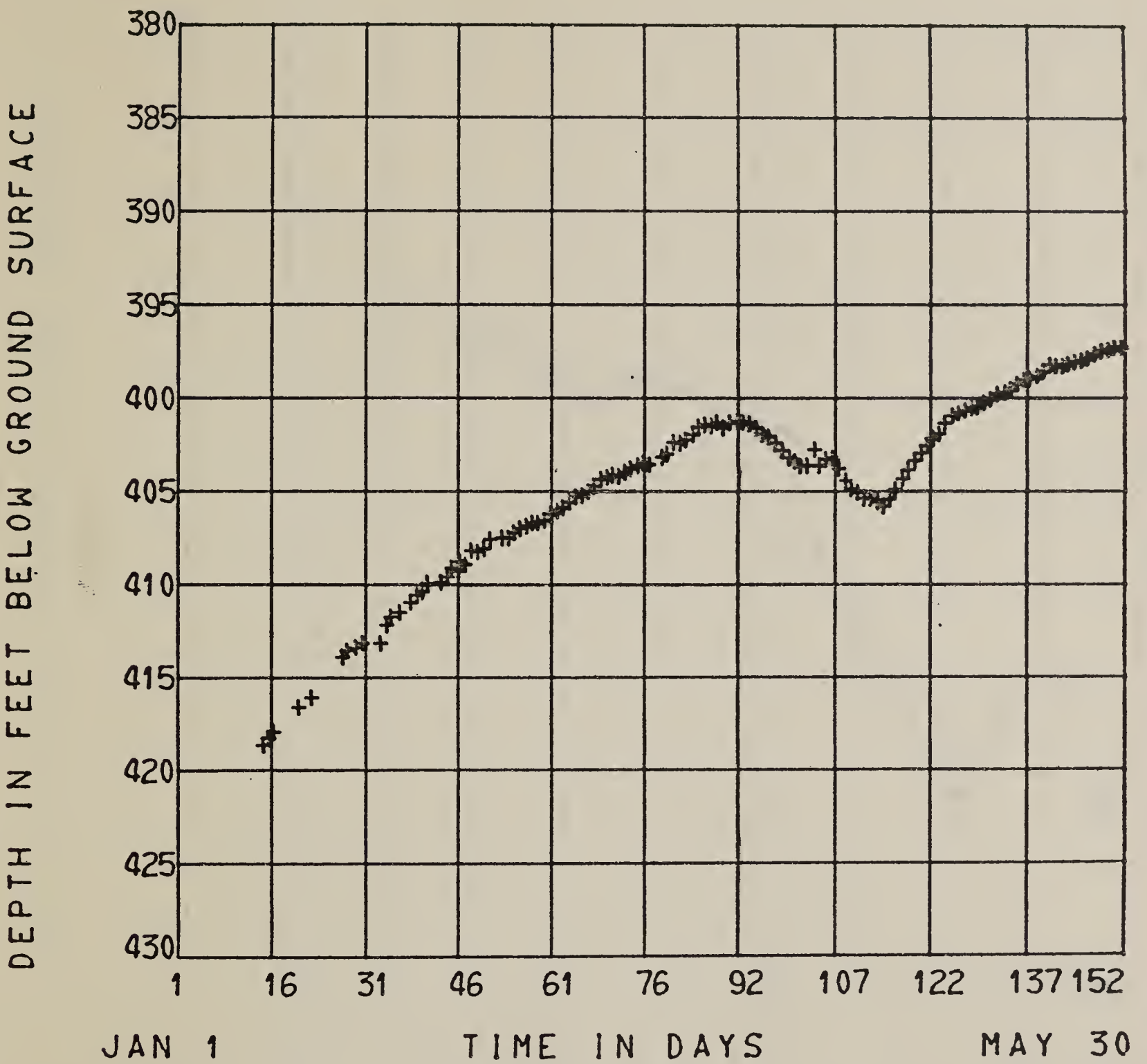
WRIGHT WATER ENGINEERS, INC.
For
Gulf Oil Corporation
and
Standard Oil Company (Indiana)

TABLE OF CONTENTS

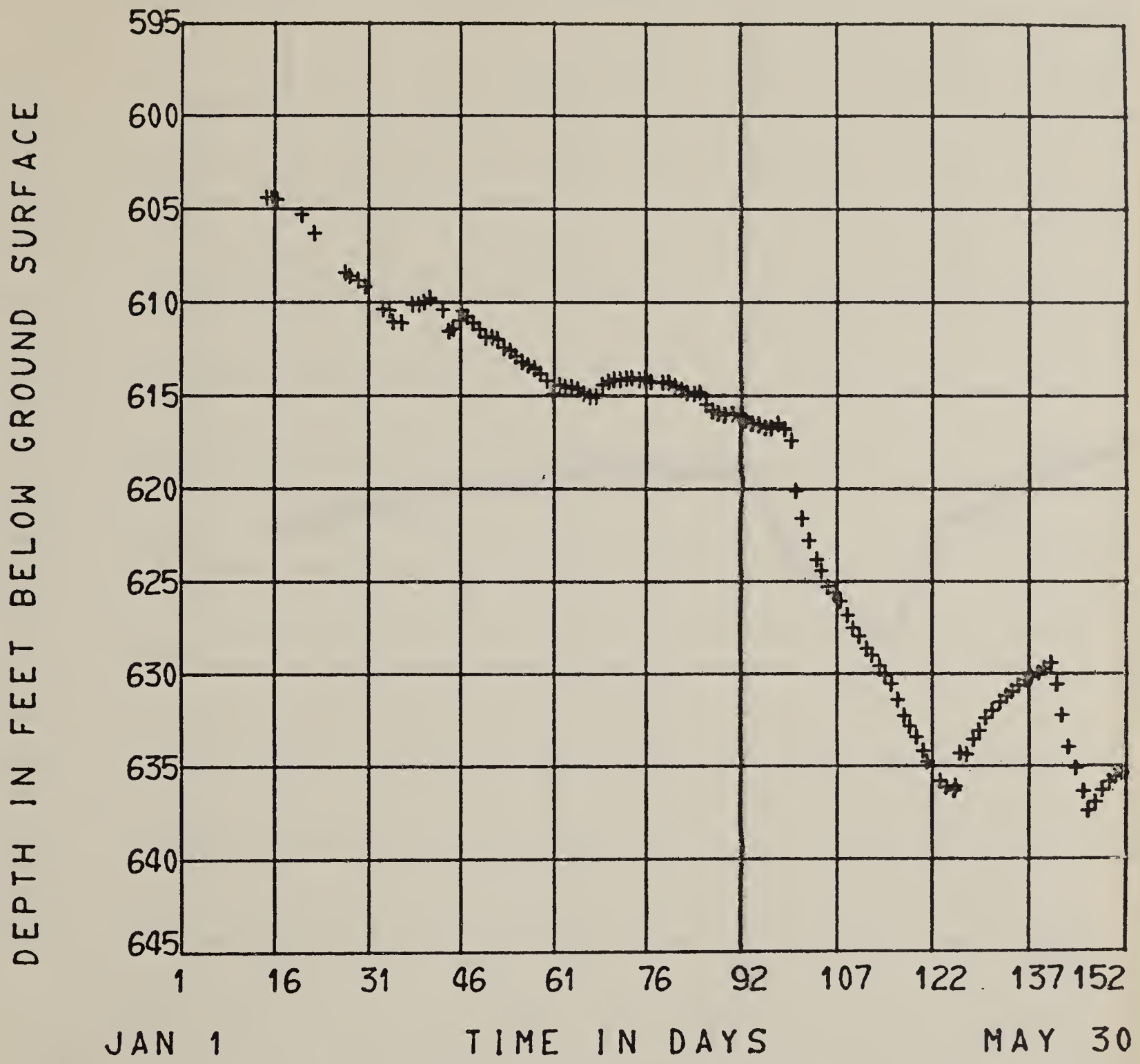
	Section Number
Upper and Lower Aquifer Pumping Tests - Appendix	1.2.6
Deep Aquifer Hydrographs: Pumping Test Holes and Deep Aquifer Monitor Holes	
Simplified Jacobs Plots: Pumping Tests Holes and Deep Aquifer Monitoring Holes Responding To Individual Pumping Test	

DEEP AQUIFER HYDROGRAPHS

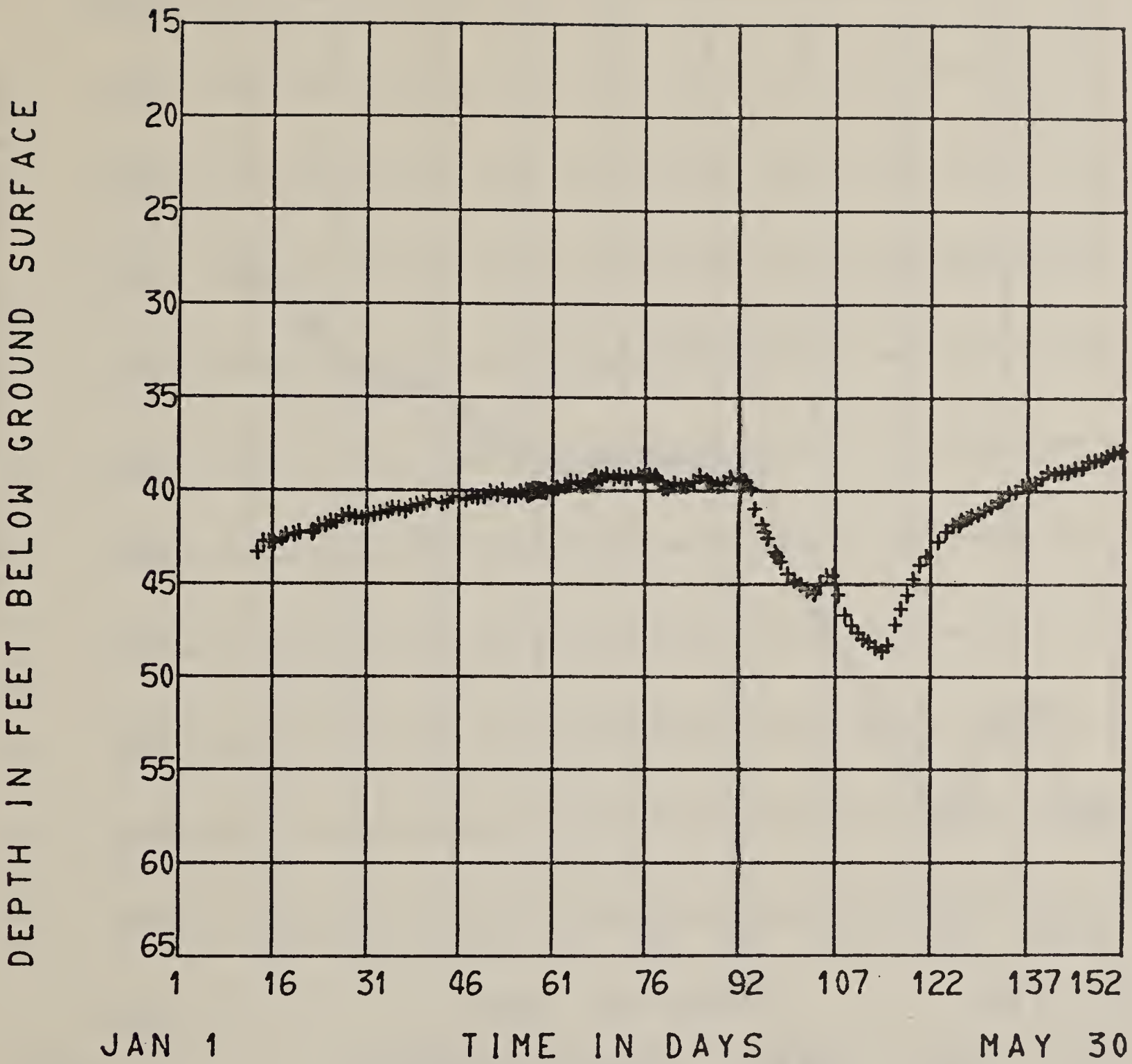
Pumping Tests and Deep Aquifer Monitor Holes



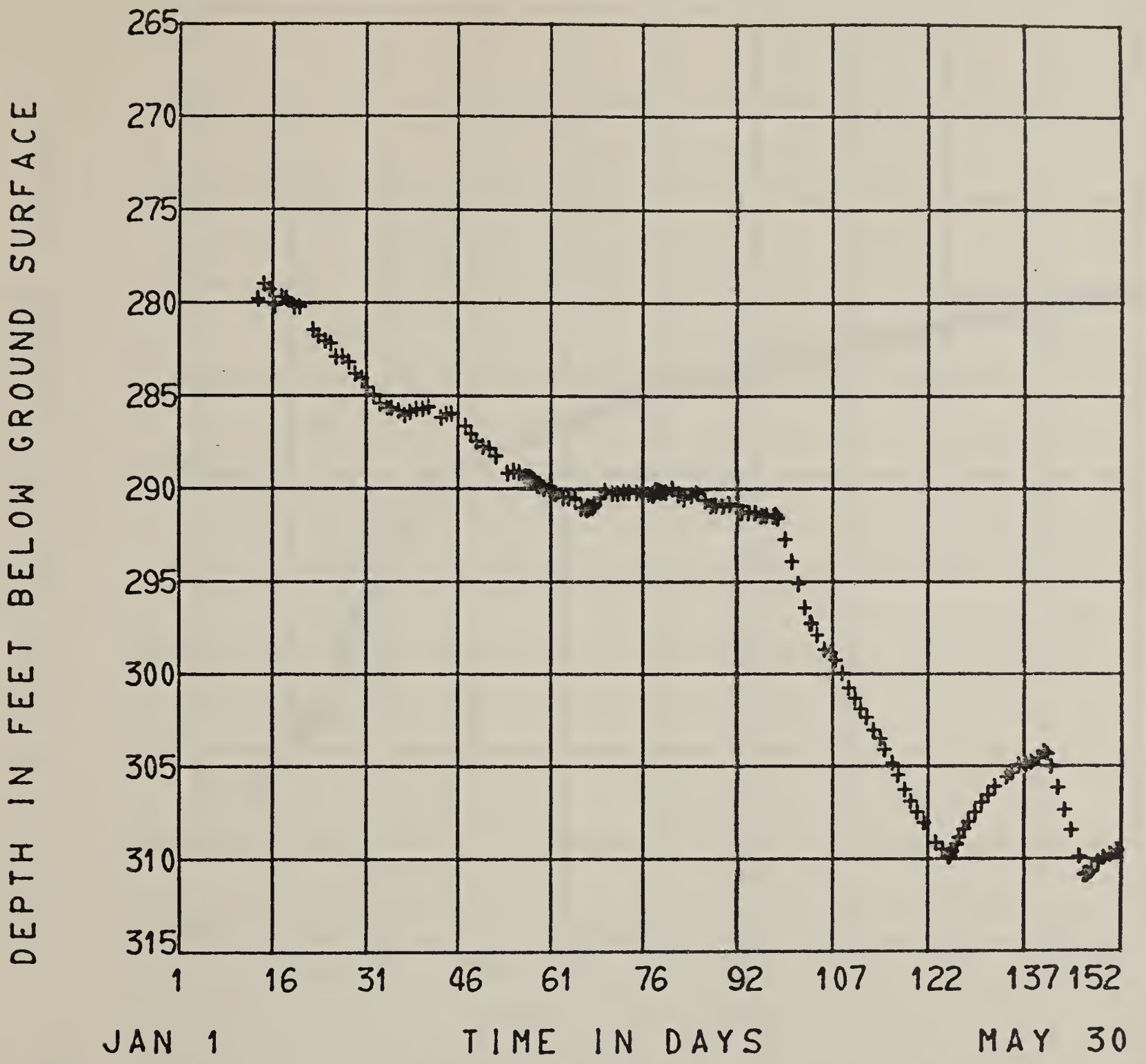
AM-2A HYDROGRAPH UPPR AQUIFER



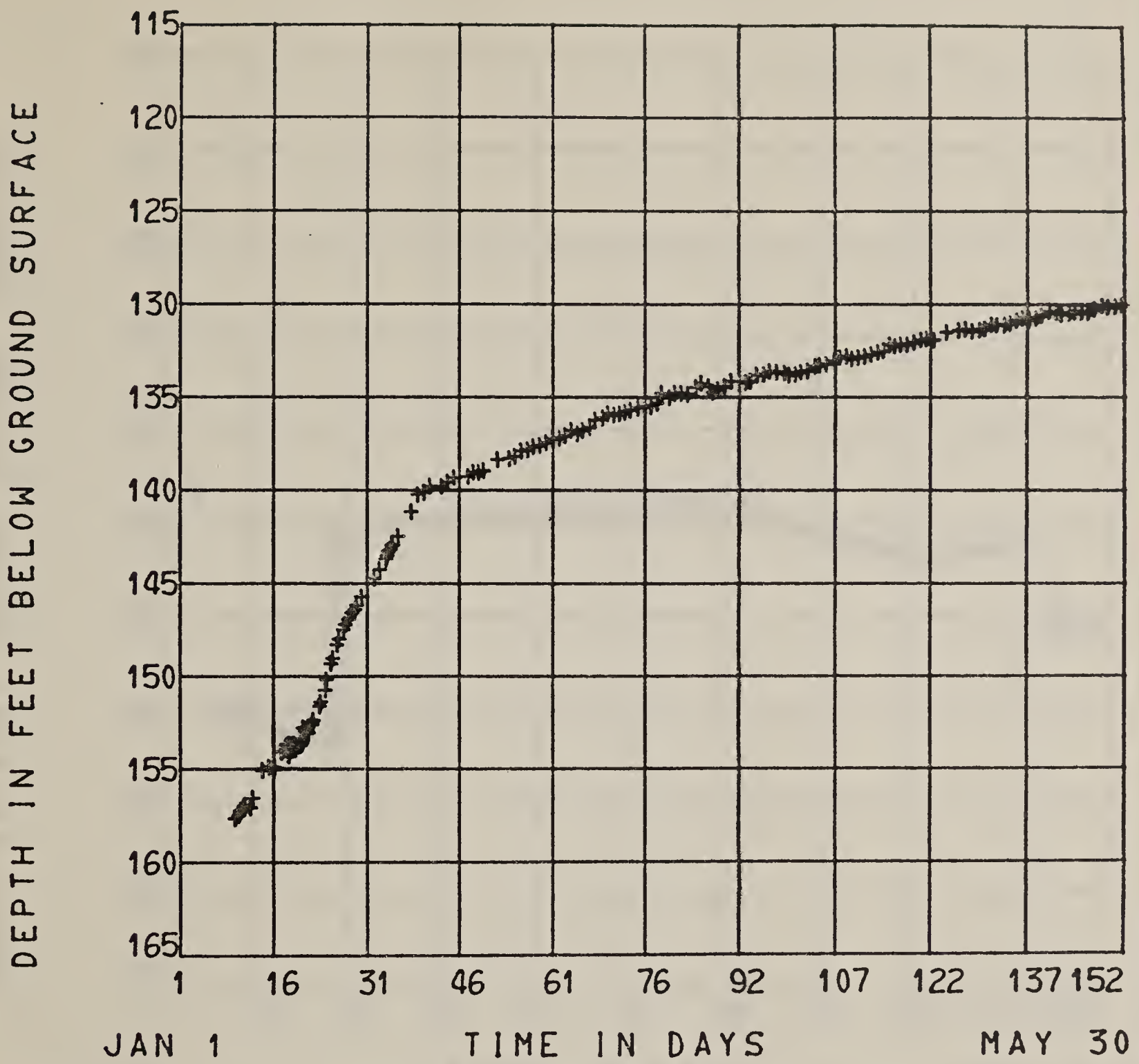
AM-2A HYDROGRAPH LOWR AQUIFER



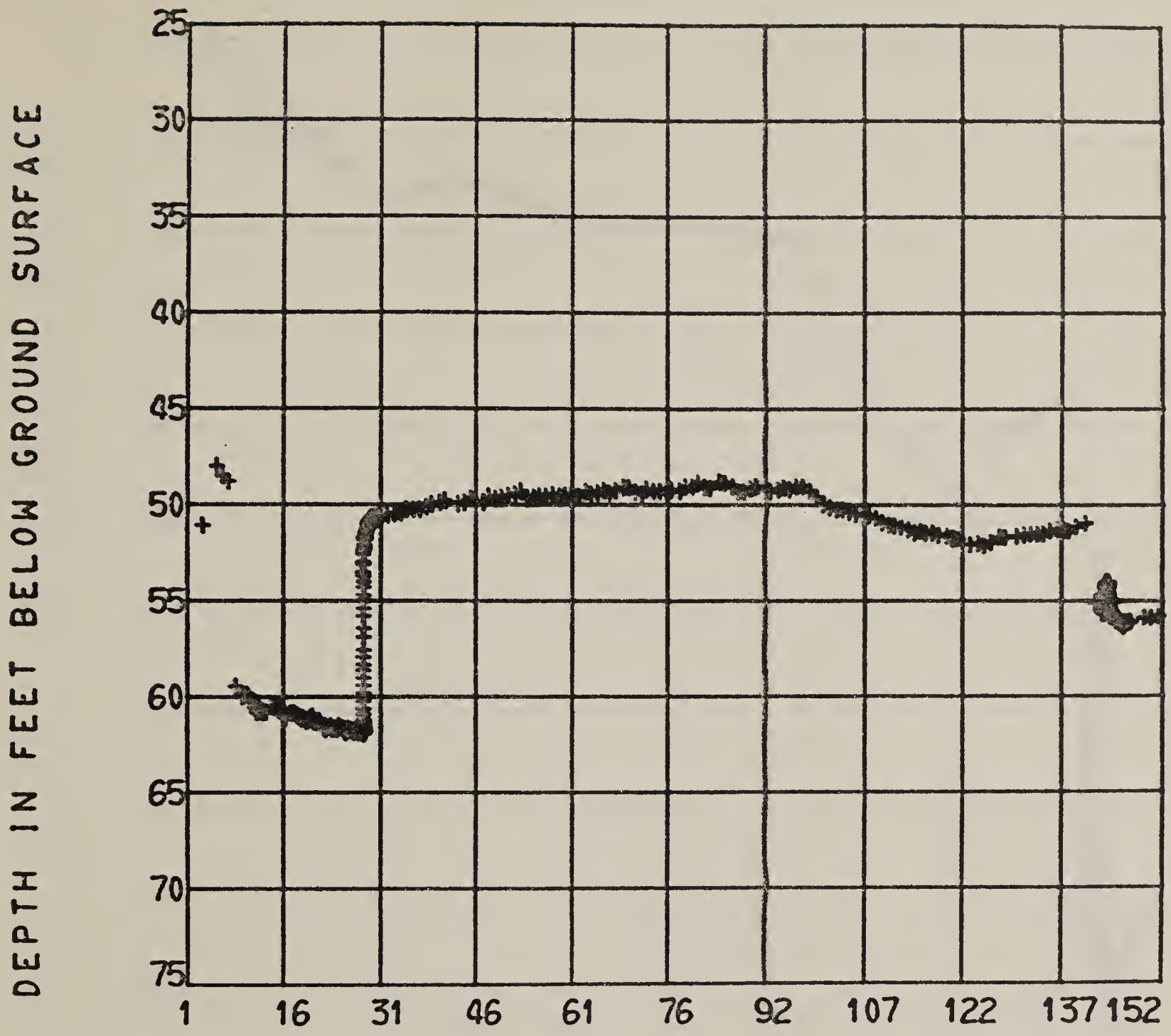
AM-3 HYDROGRAPH UPPR AQUIFER



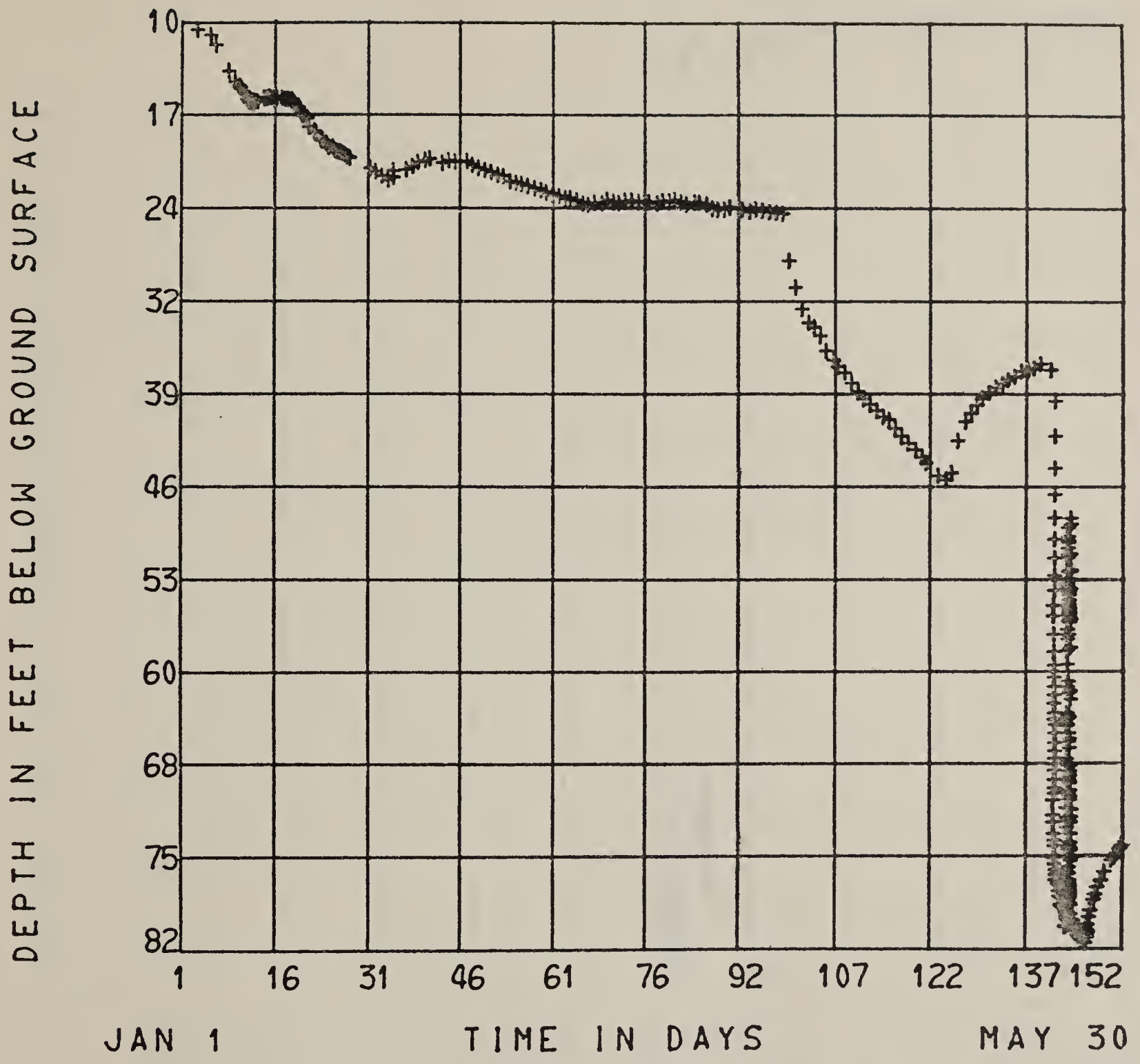
AM-3 HYDROGRAPH LOWR AQUIFER



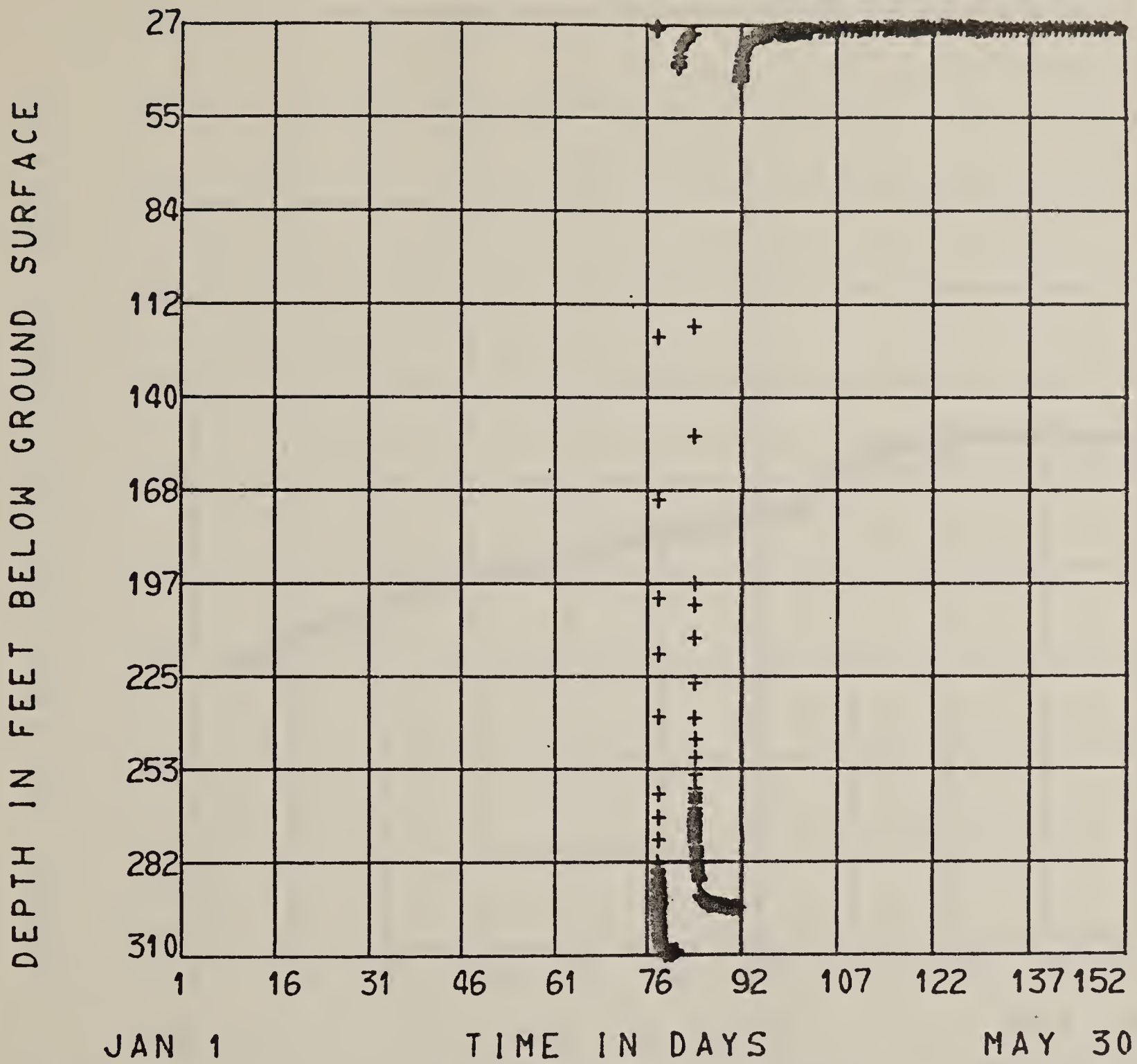
CE 701 HYDROGRAPH UPPR AQUIFER



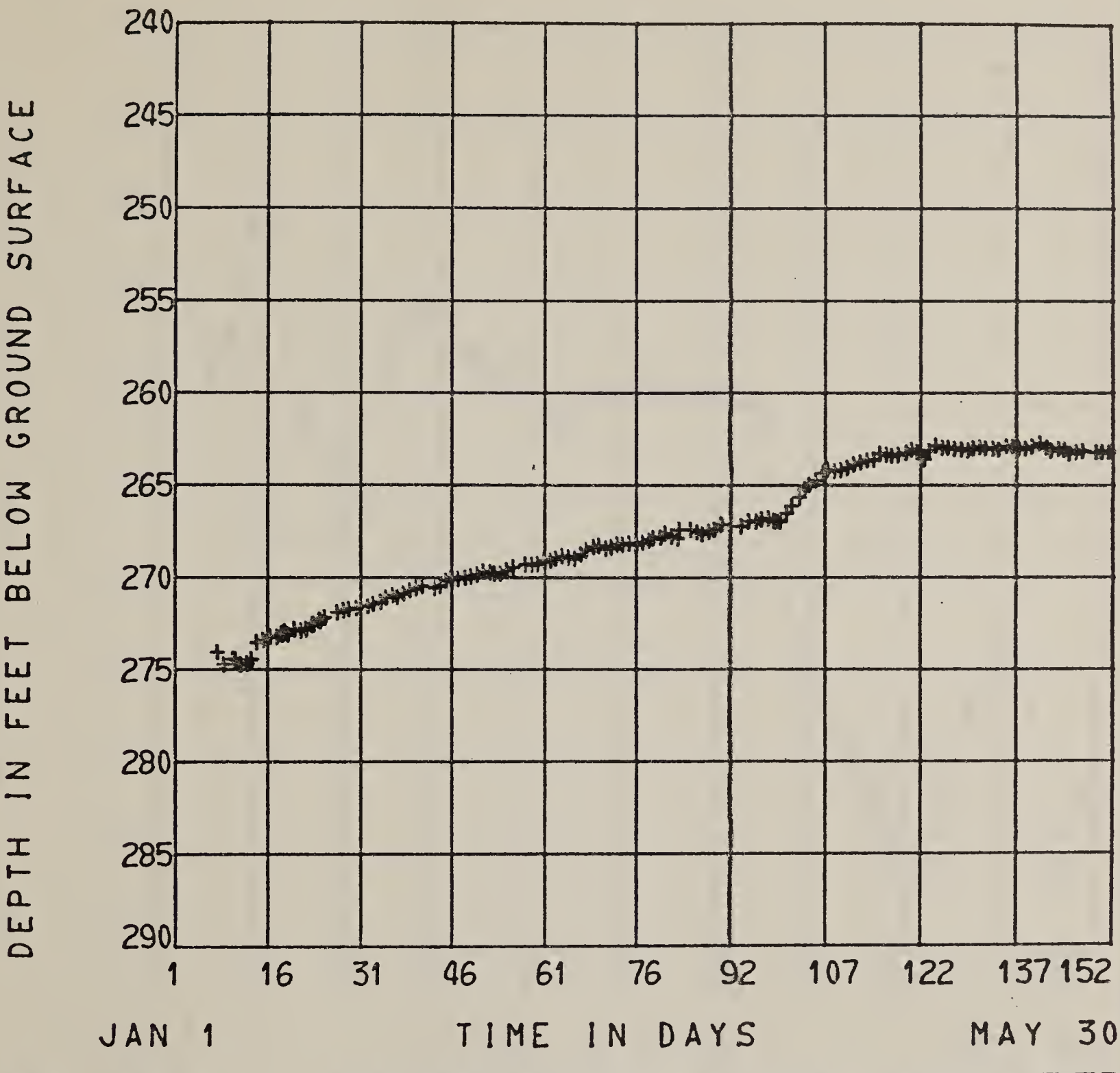
CE 702 HYDROGRAPH UPPR AQUIFER



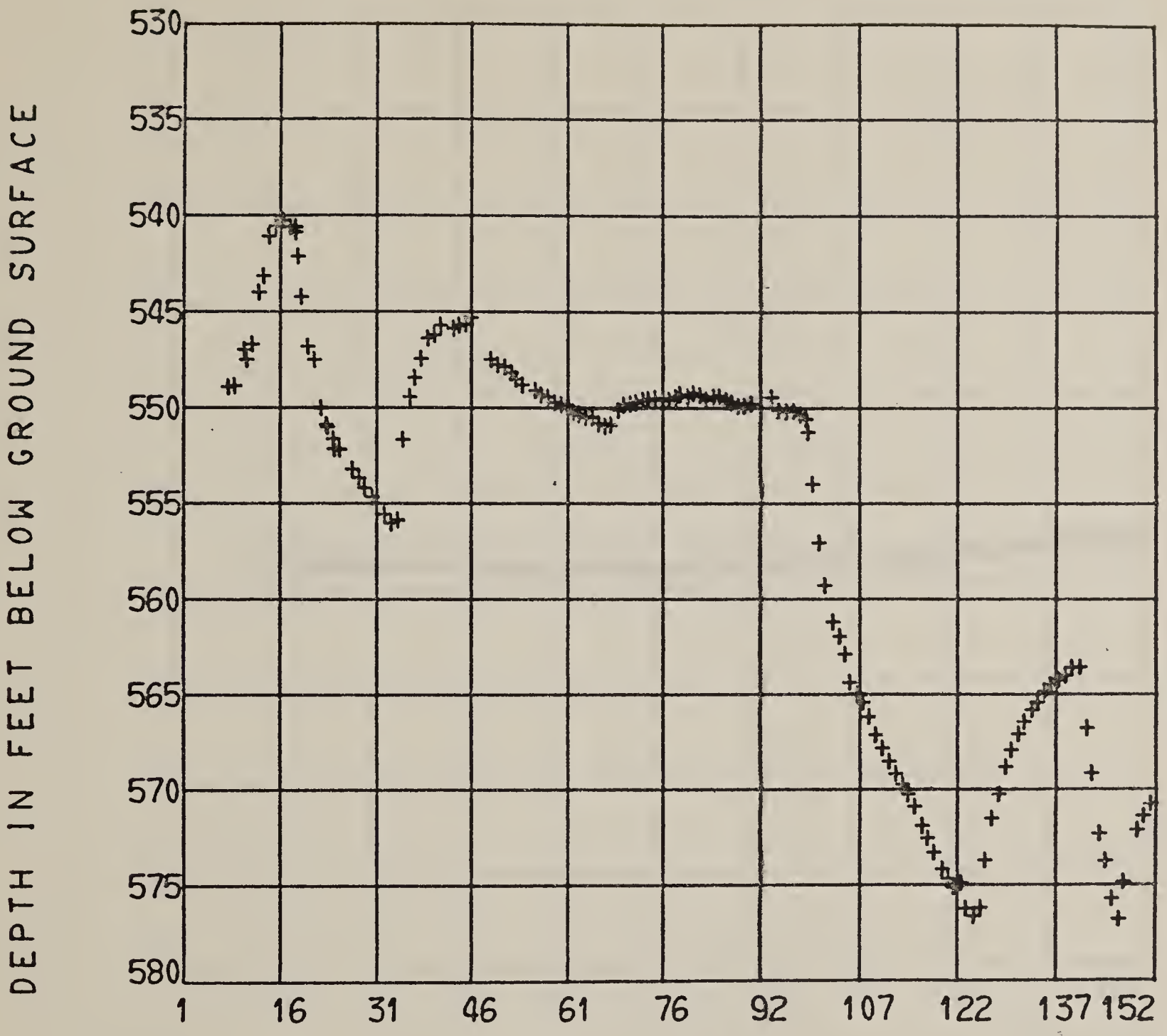
CE 702 HYDROGRAPH LOWR AQUIFER



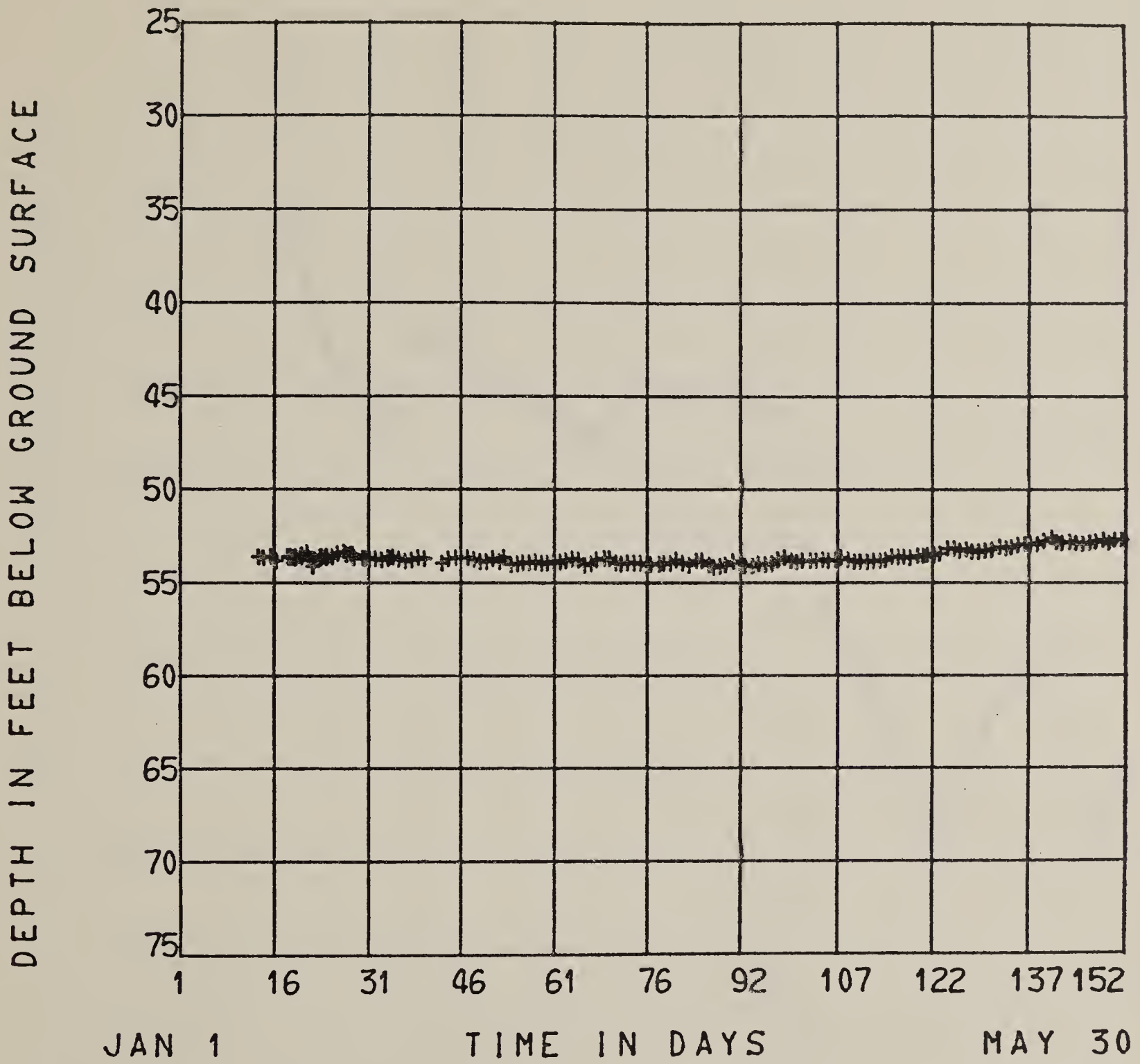
CE 705A HYDROGRAPH UPPR AQUIFER



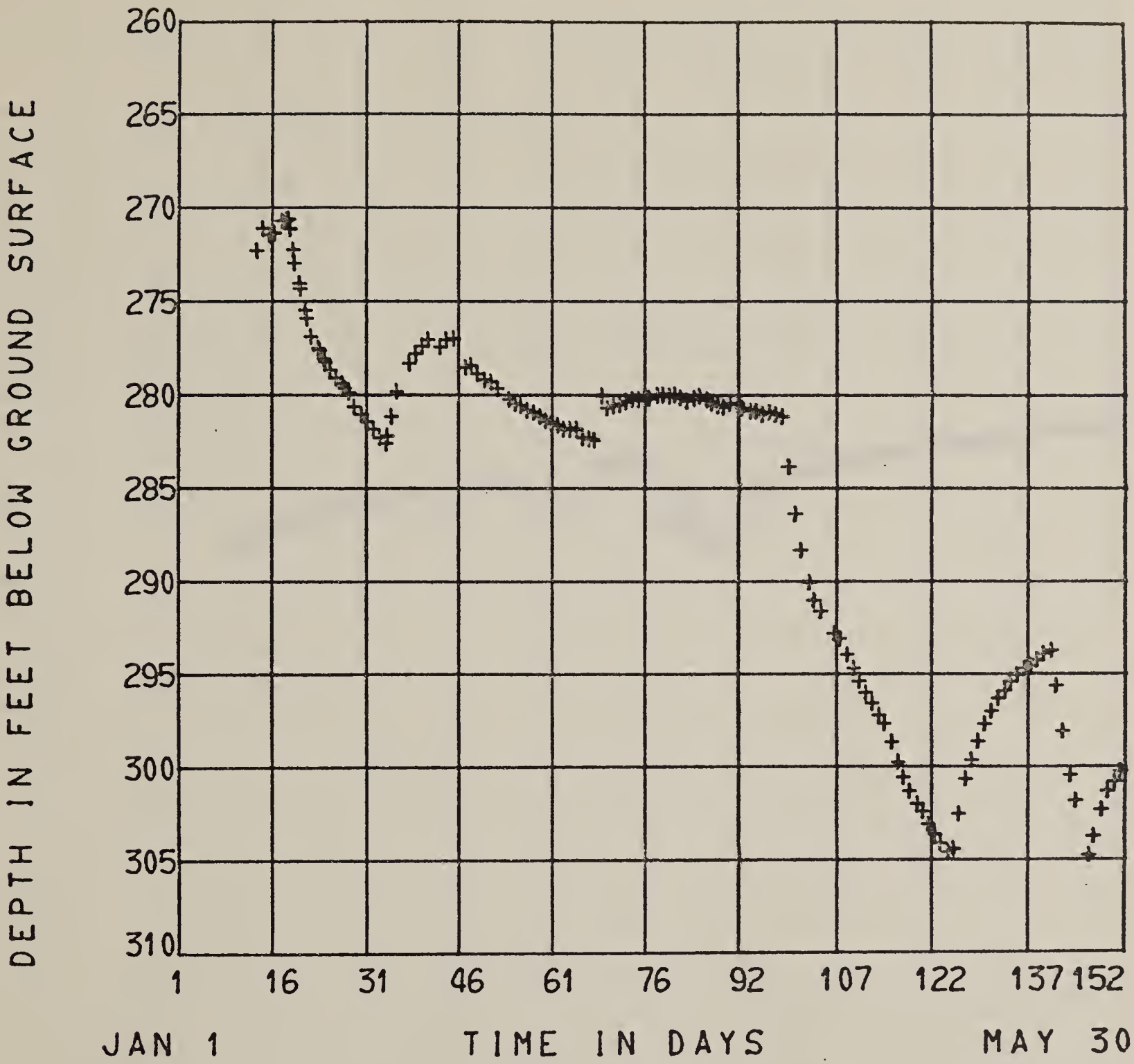
CE 707 HYDROGRAPH UPPR AQUIFER



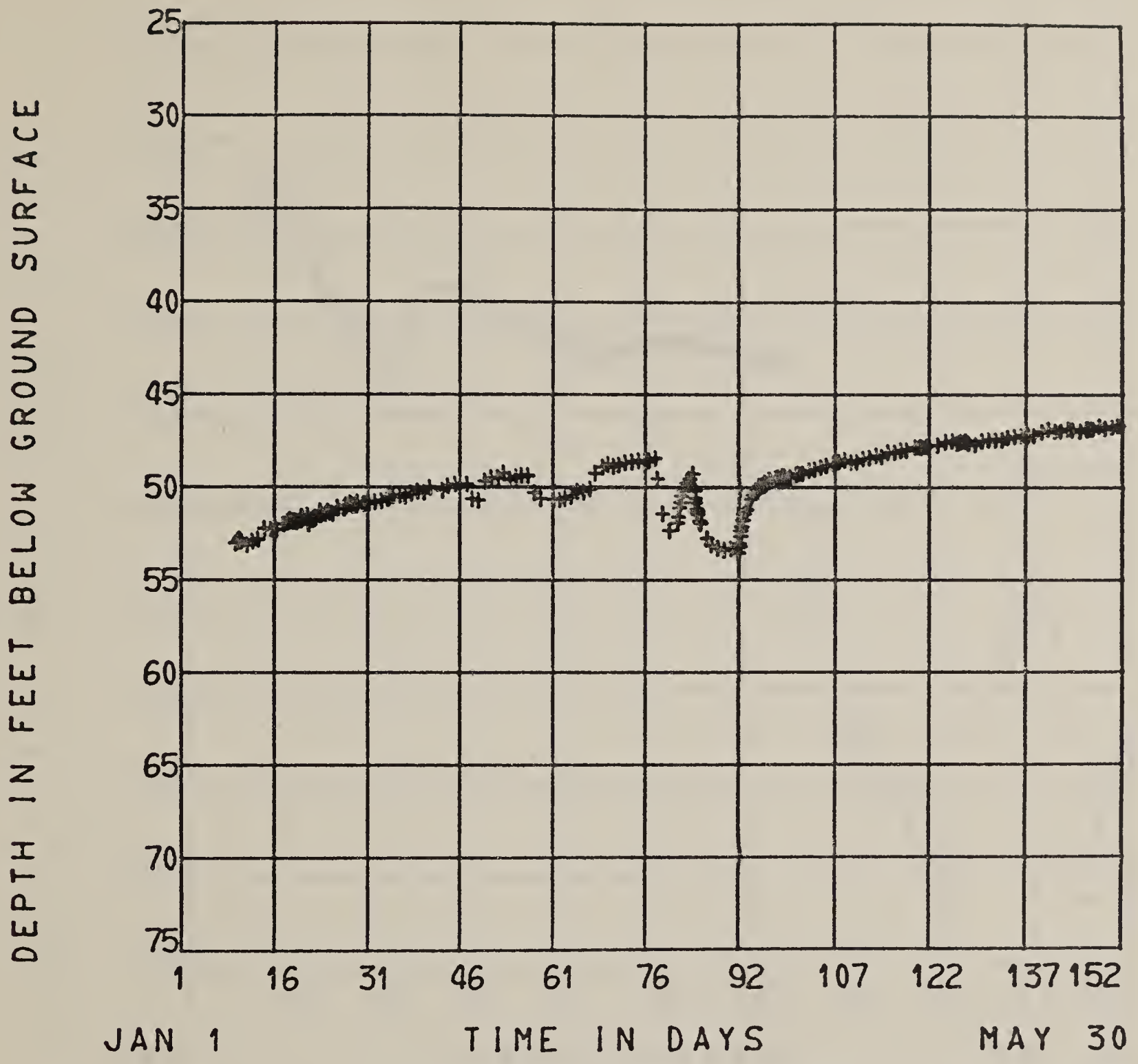
CE 707 HYDROGRAPH LOWR AQUIFER



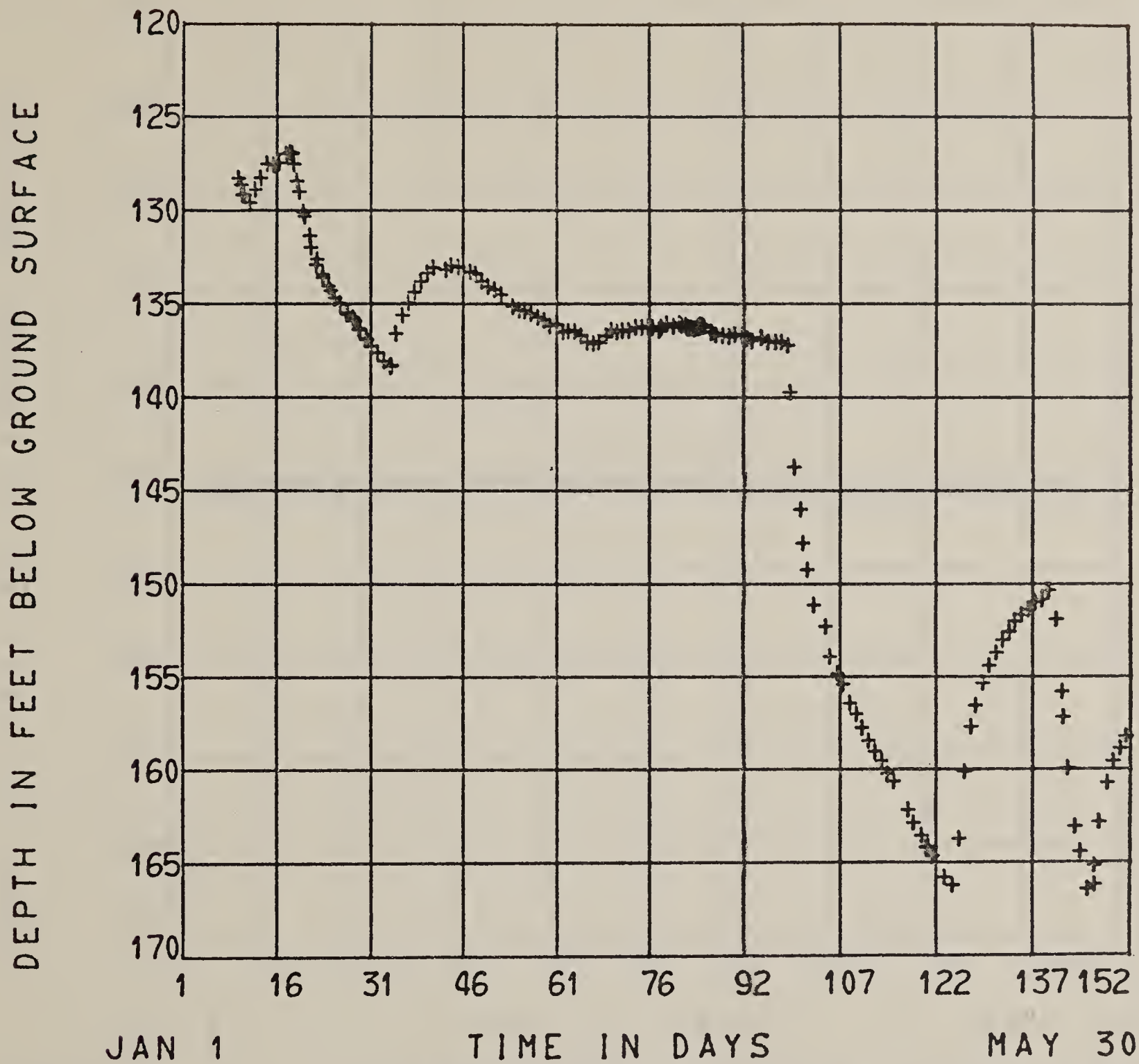
CE 708 HYDROGRAPH UPPR AQUIFER



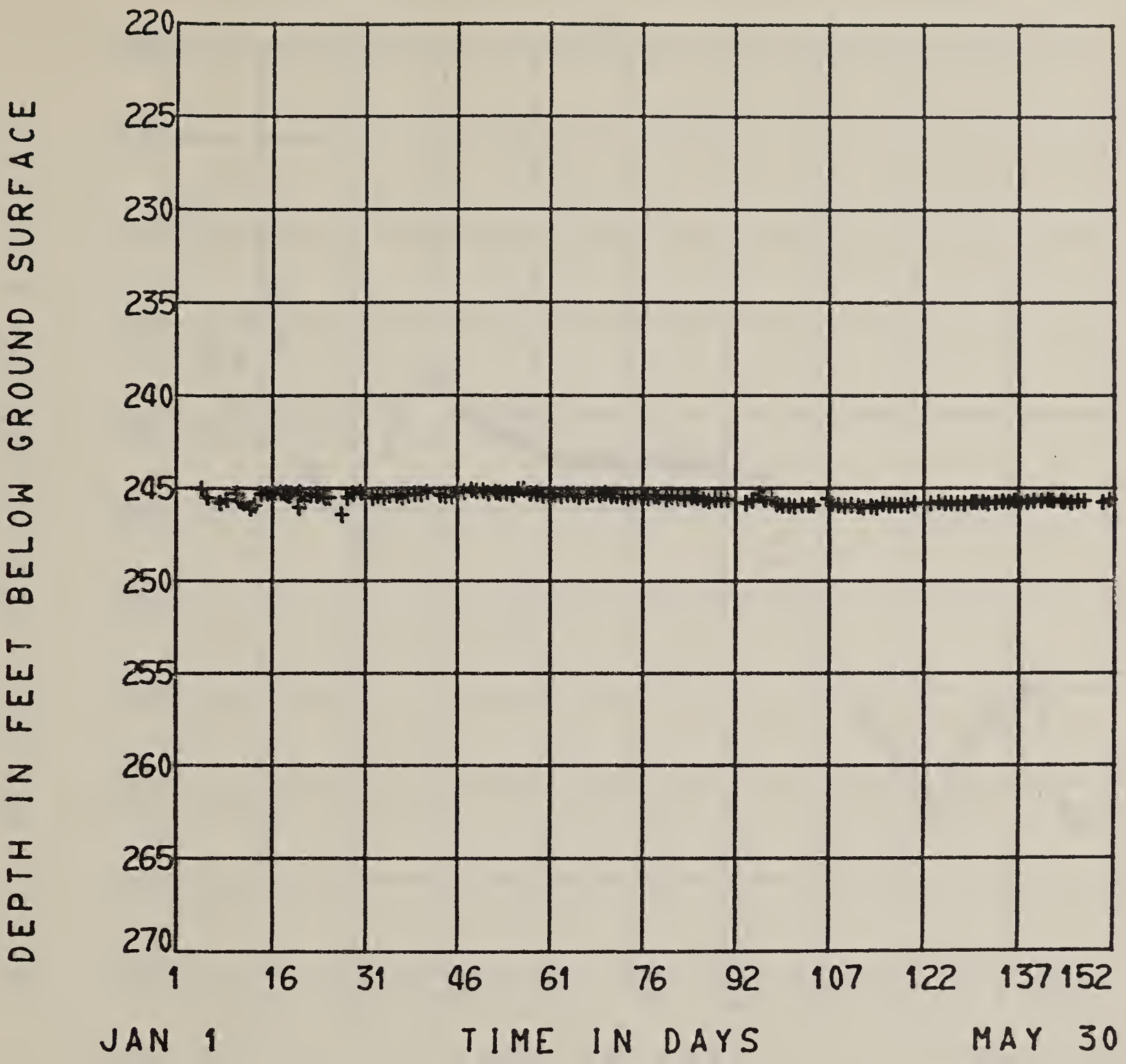
CE 708 HYDROGRAPH LOWR AQUIFER



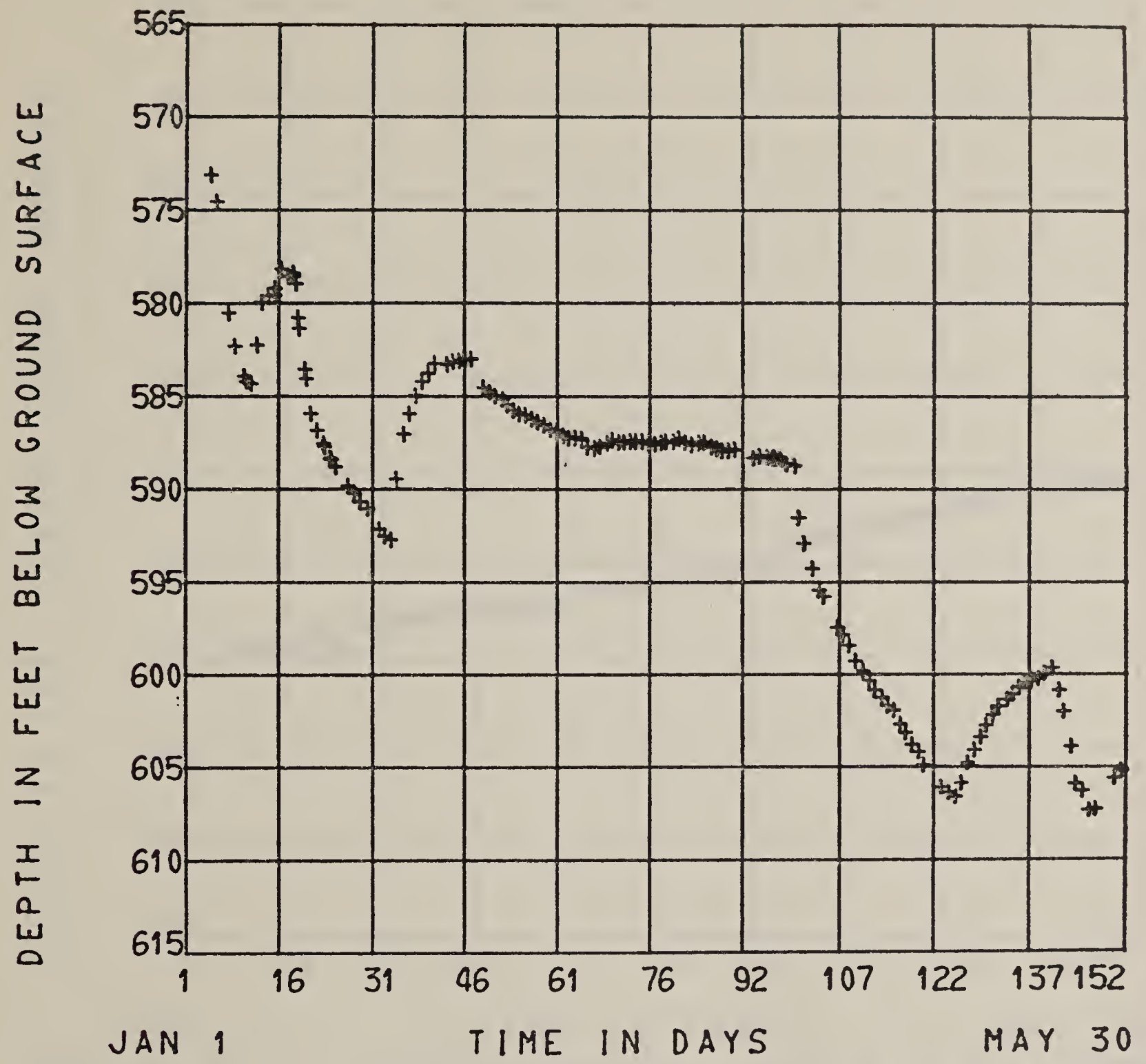
CE 709 HYDROGRAPH UPPR AQUIFER



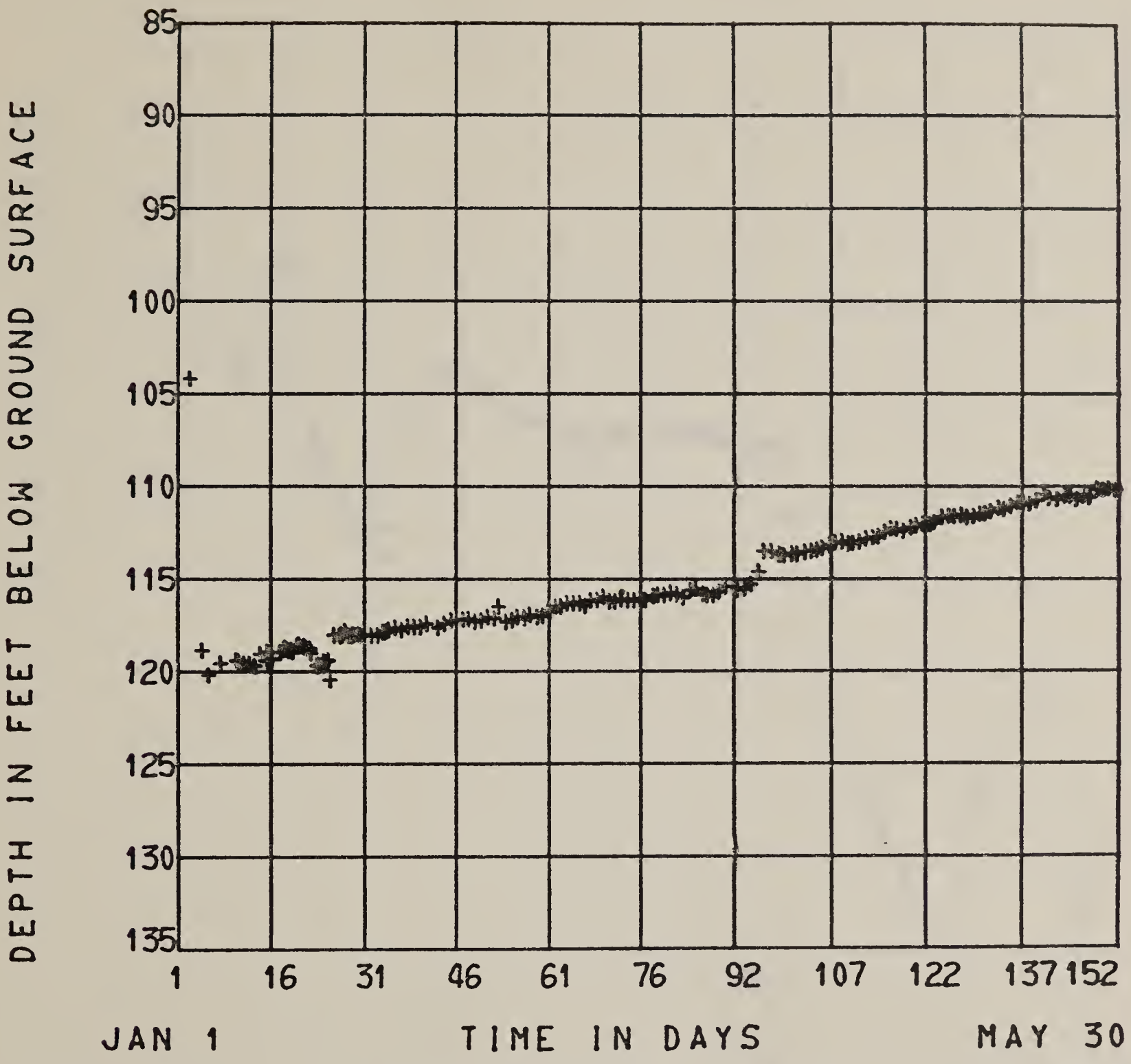
CE 709 HYDROGRAPH LOWR AQUIFER



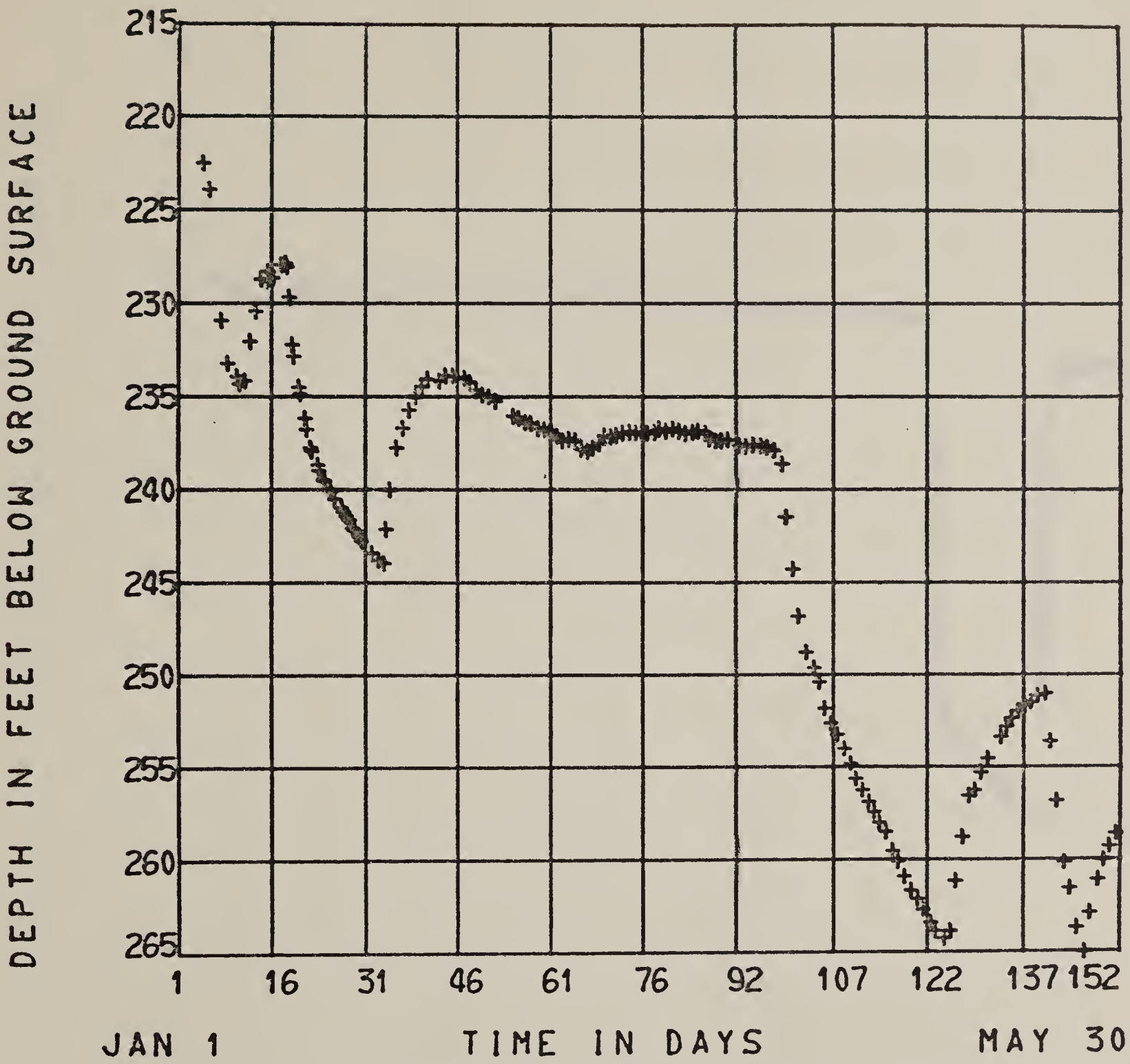
GS-1 HYDROGRAPH UPPR AQUIFER



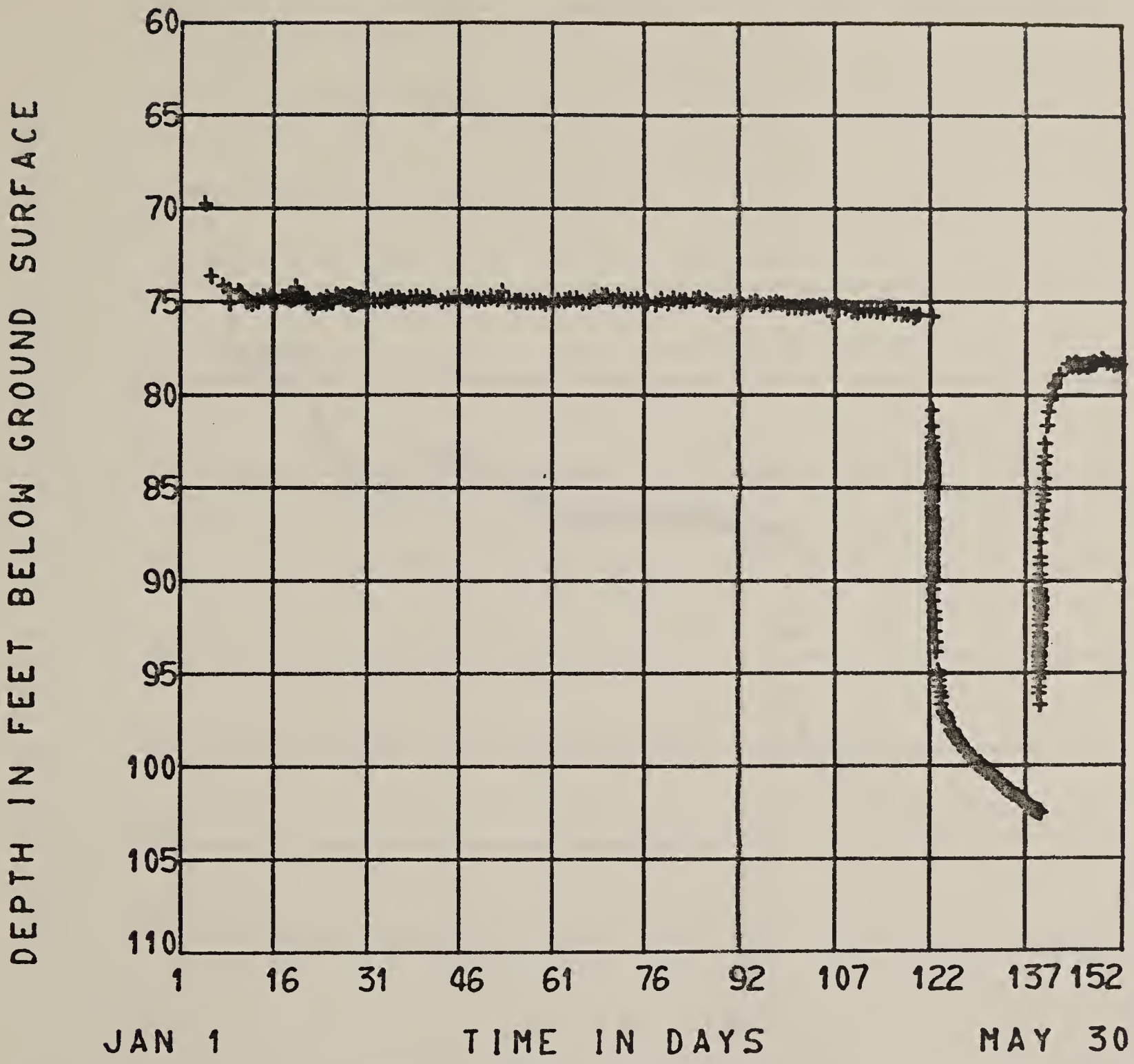
GS-1 HYDROGRAPH LOWR AQUIFER



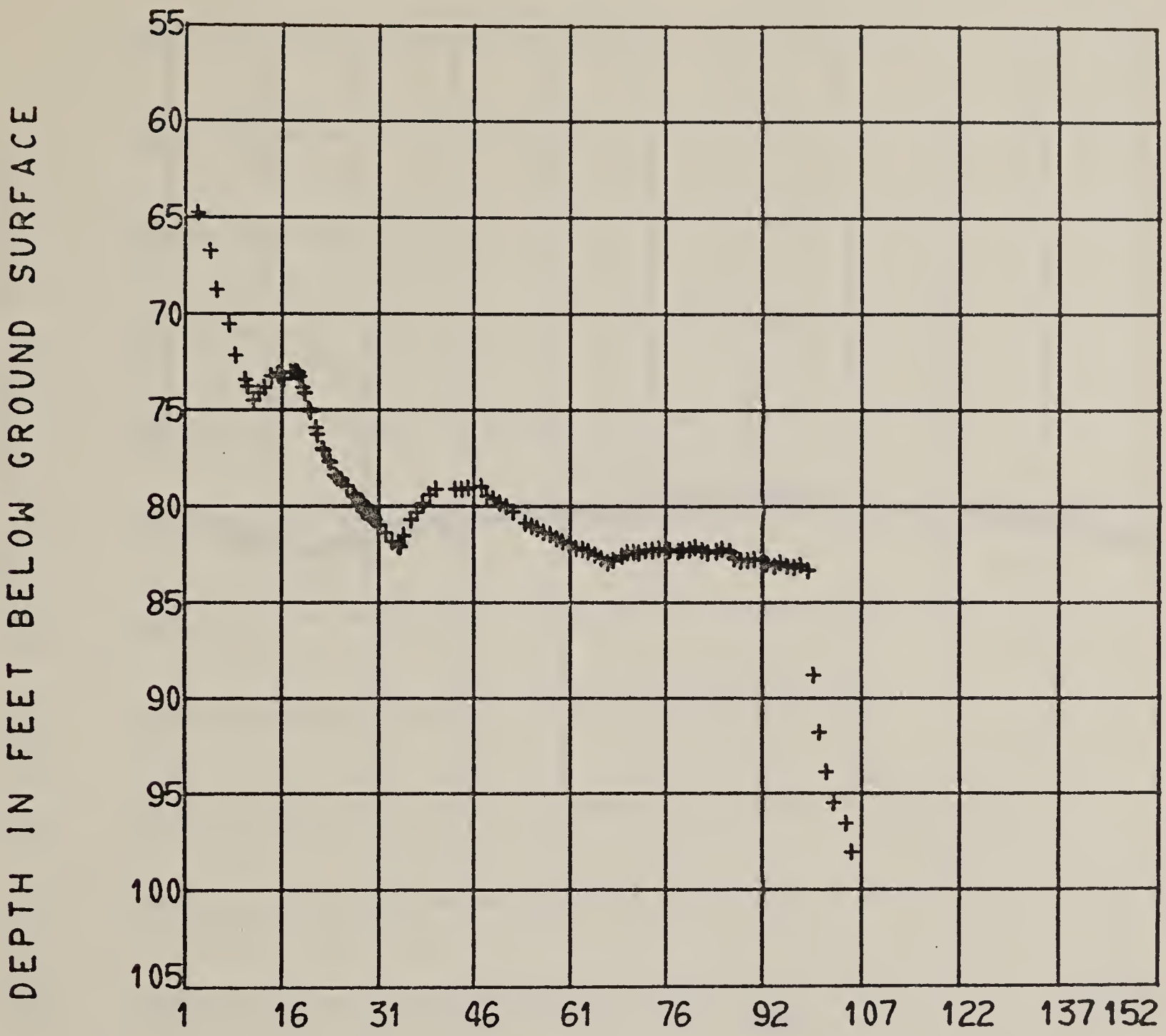
GS-2-3 HYDROGRAPH UPPR AQUIFER



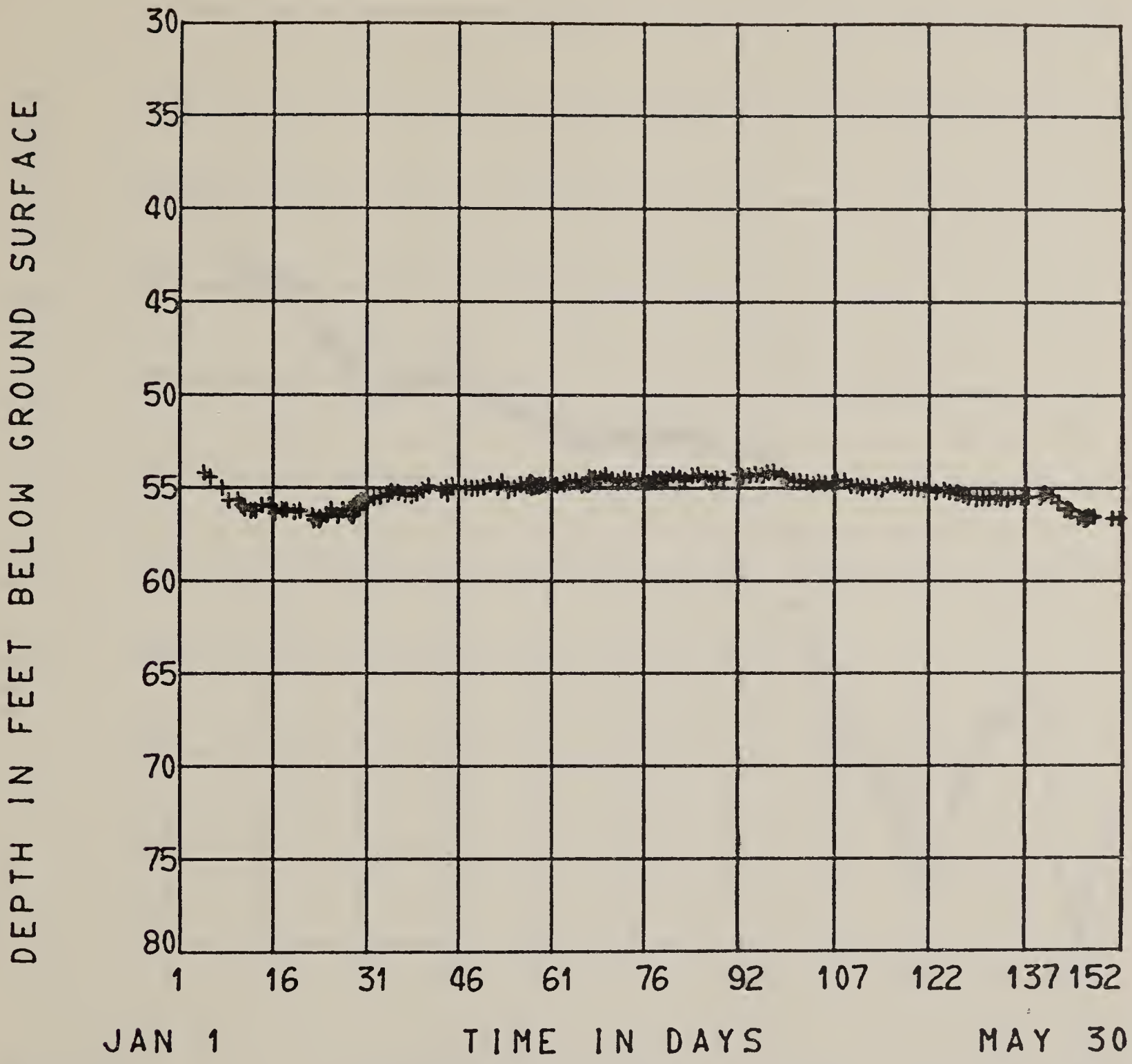
GS-2-3 HYDROGRAPH LOWR AQUIFER



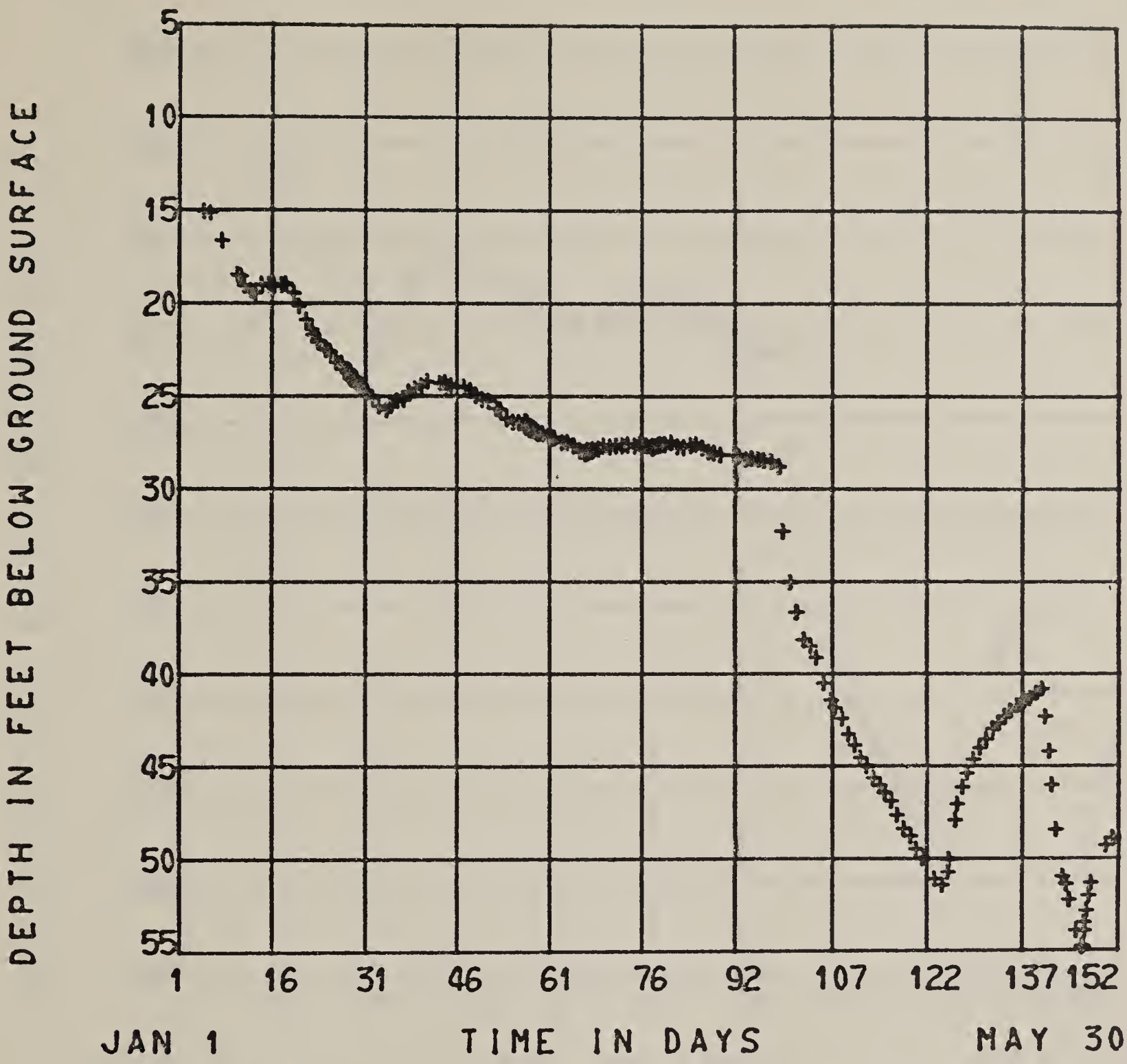
GS-4-5 HYDROGRAPH UPPR AQUIFER



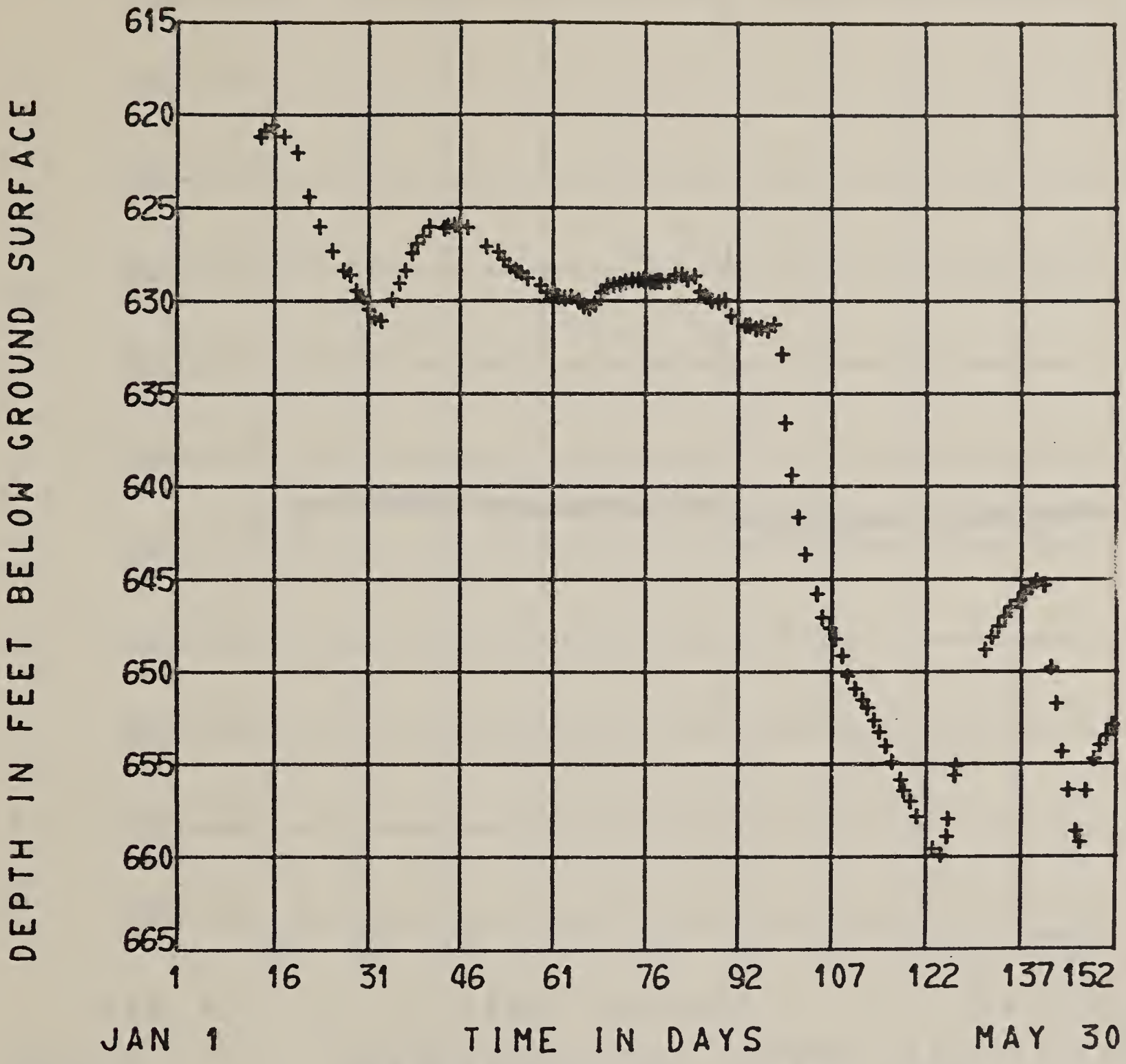
GS-4-5 HYDROGRAPH LOWR AQUIFER



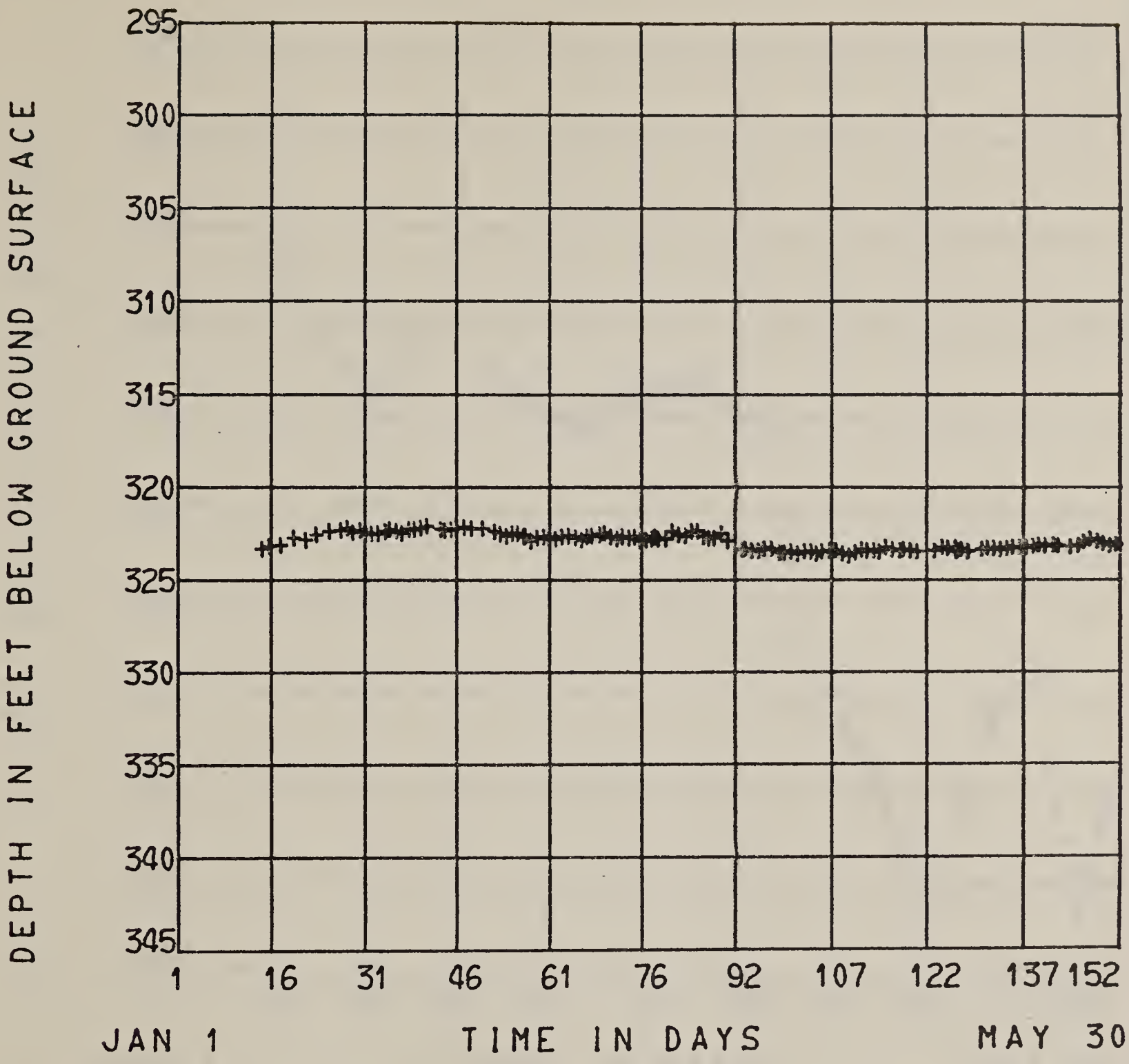
GS-6 HYDROGRAPH UPPR AQUIFER



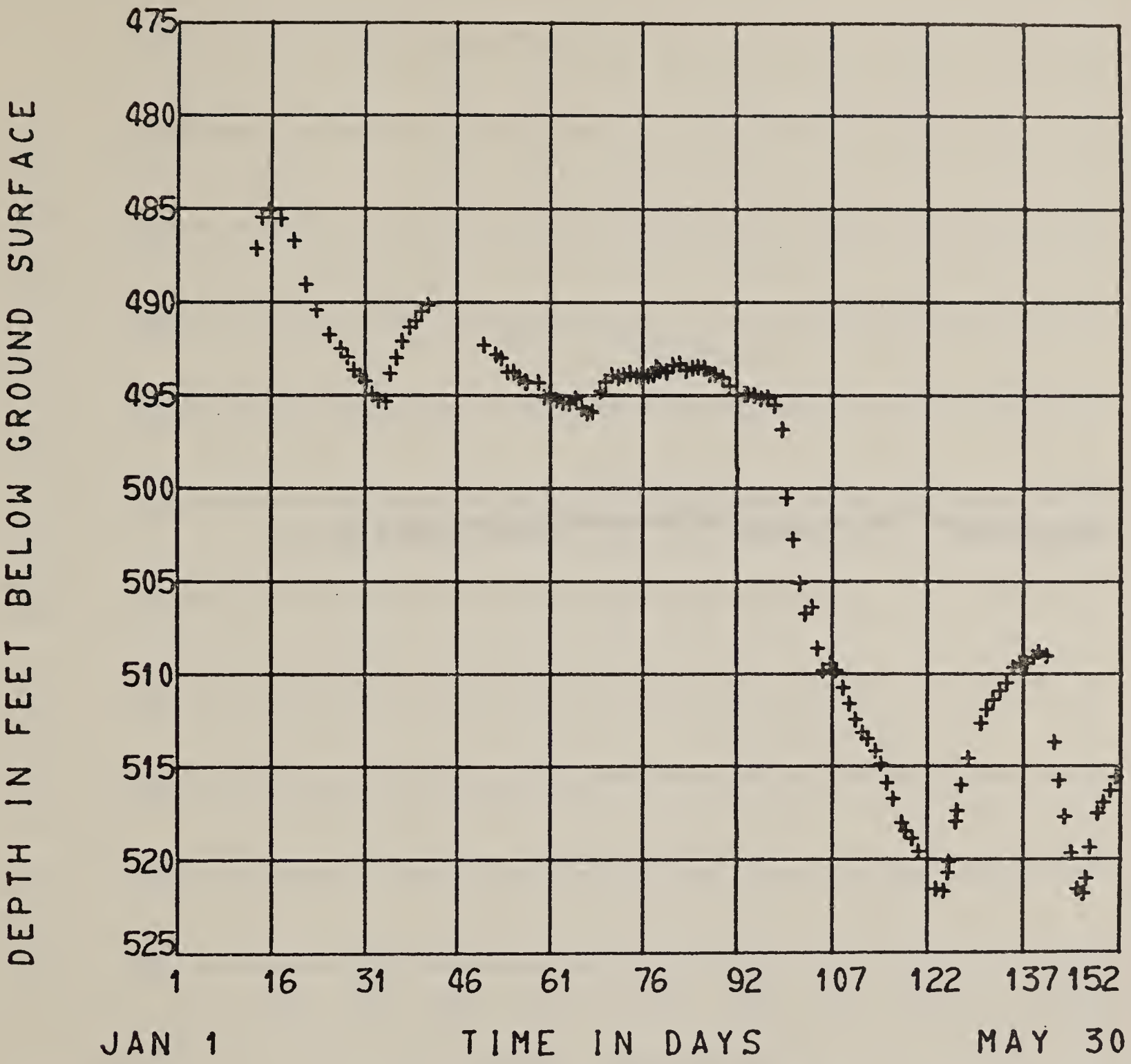
GS-6 HYDROGRAPH LOWR AQUIFER



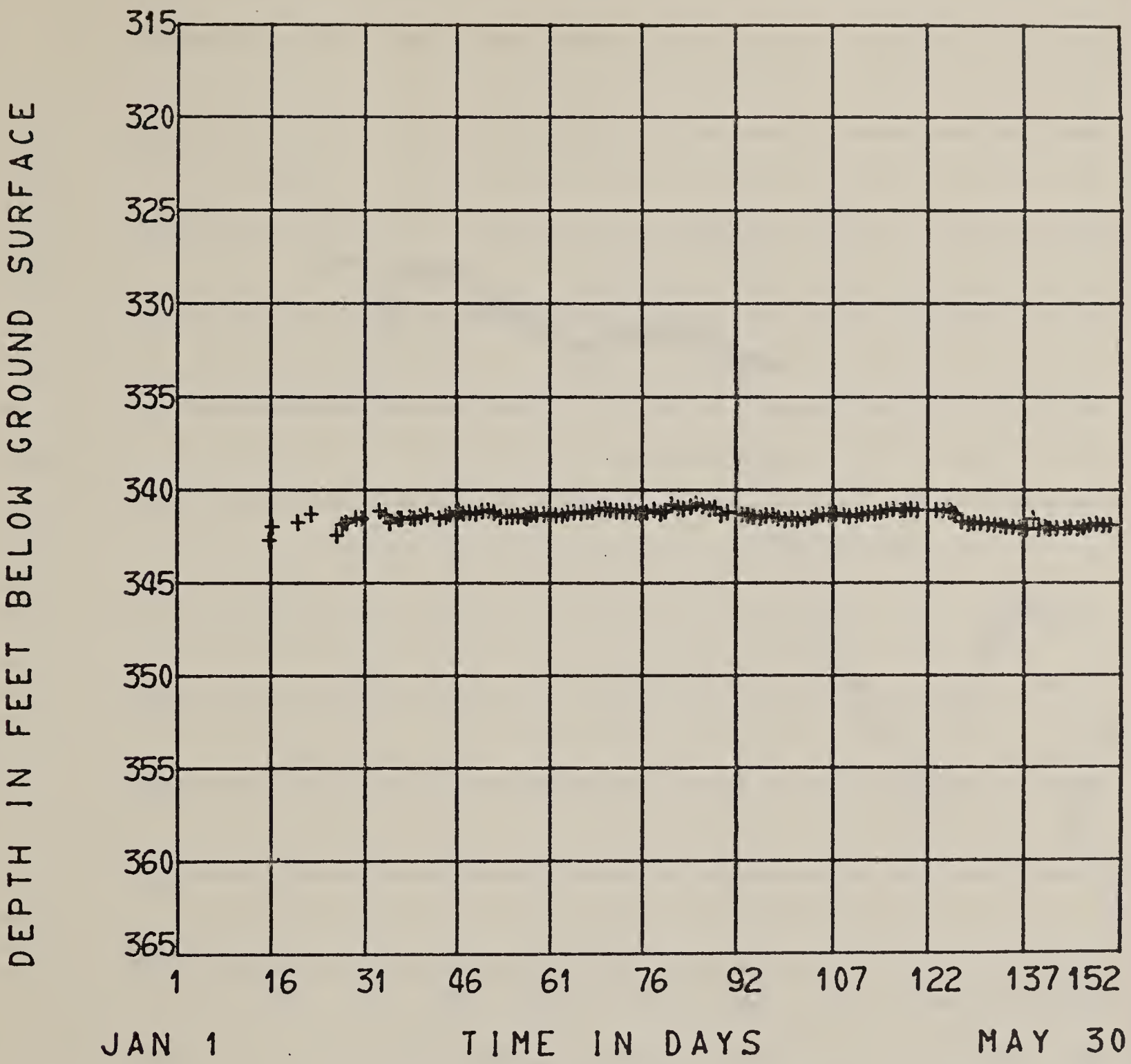
GS-8 HYDROGRAPH LOWR AQUIFER



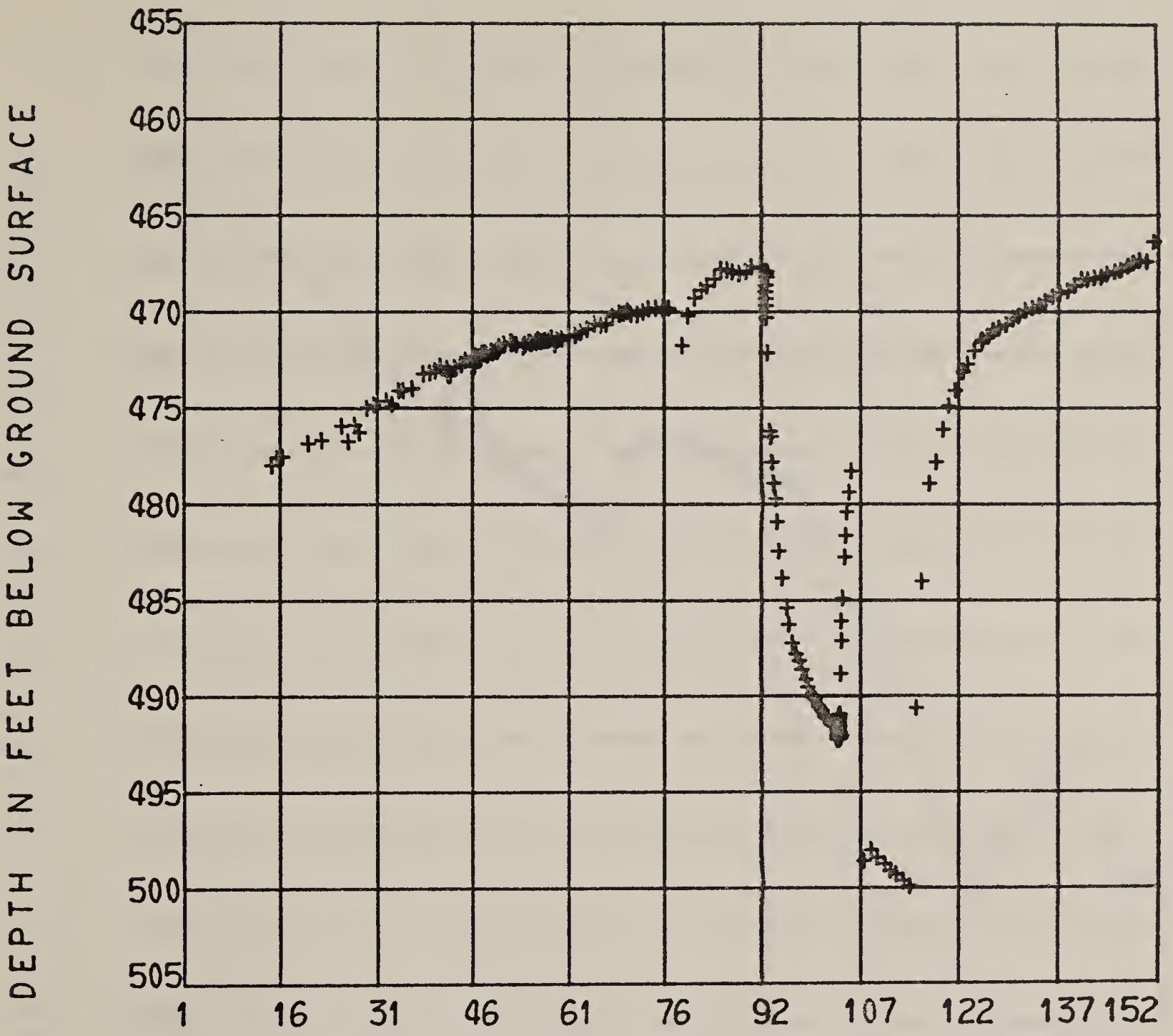
GS-9 HYDROGRAPH UPPR AQUIFER



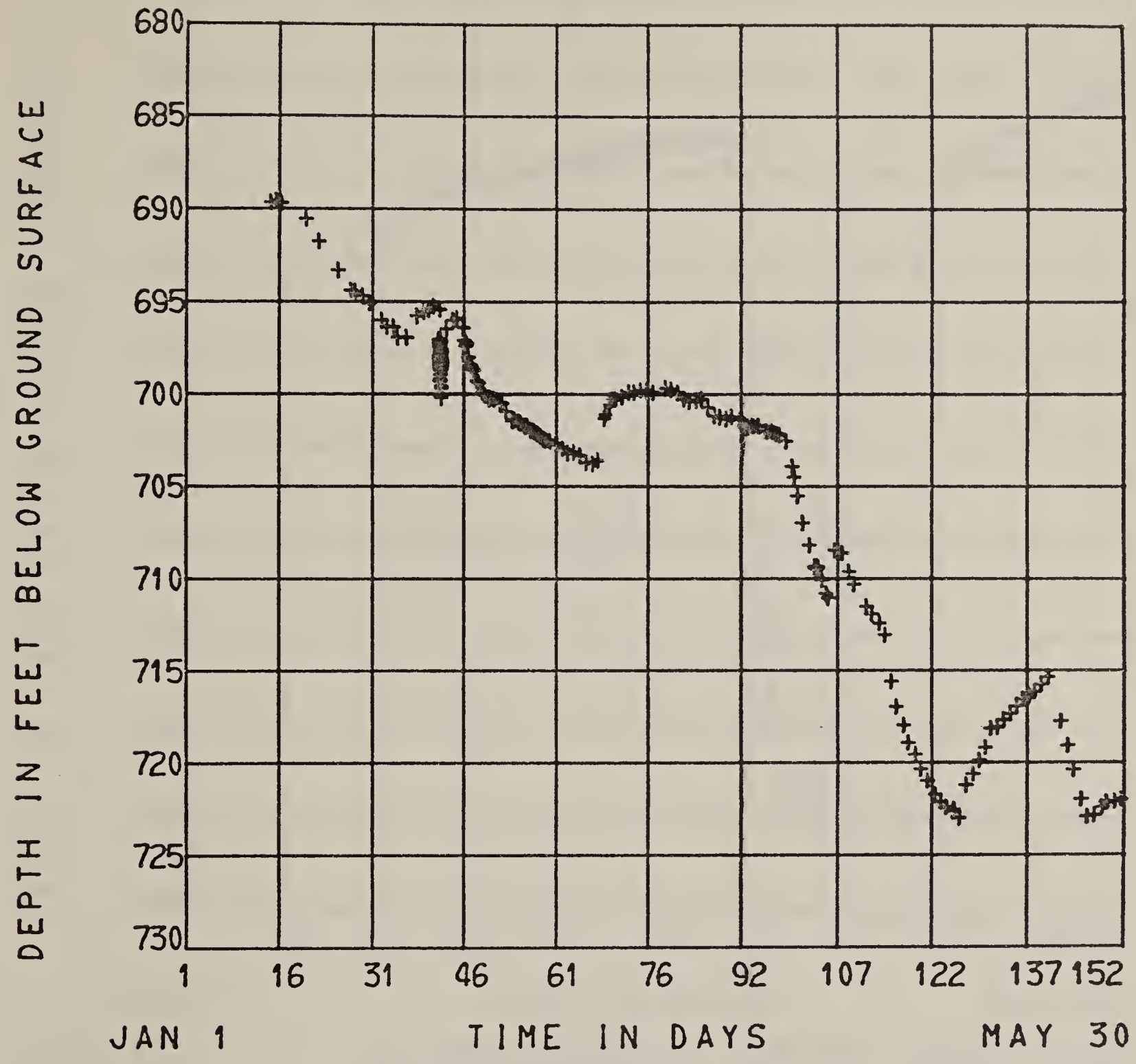
GS-9 HYDROGRAPH LOWR AQUIFER



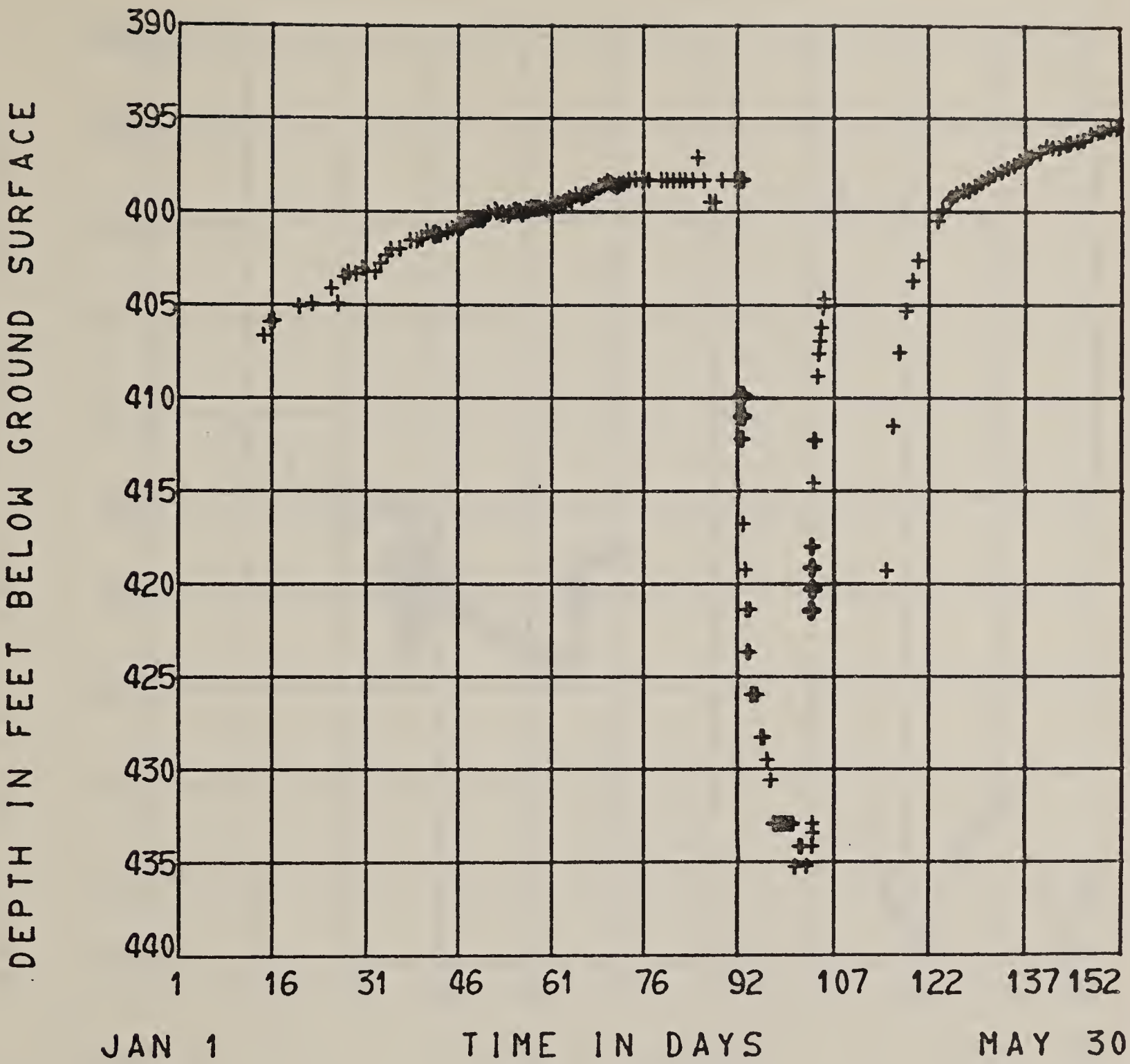
GS-10 HYDROGRAPH UPPR AQUIFER



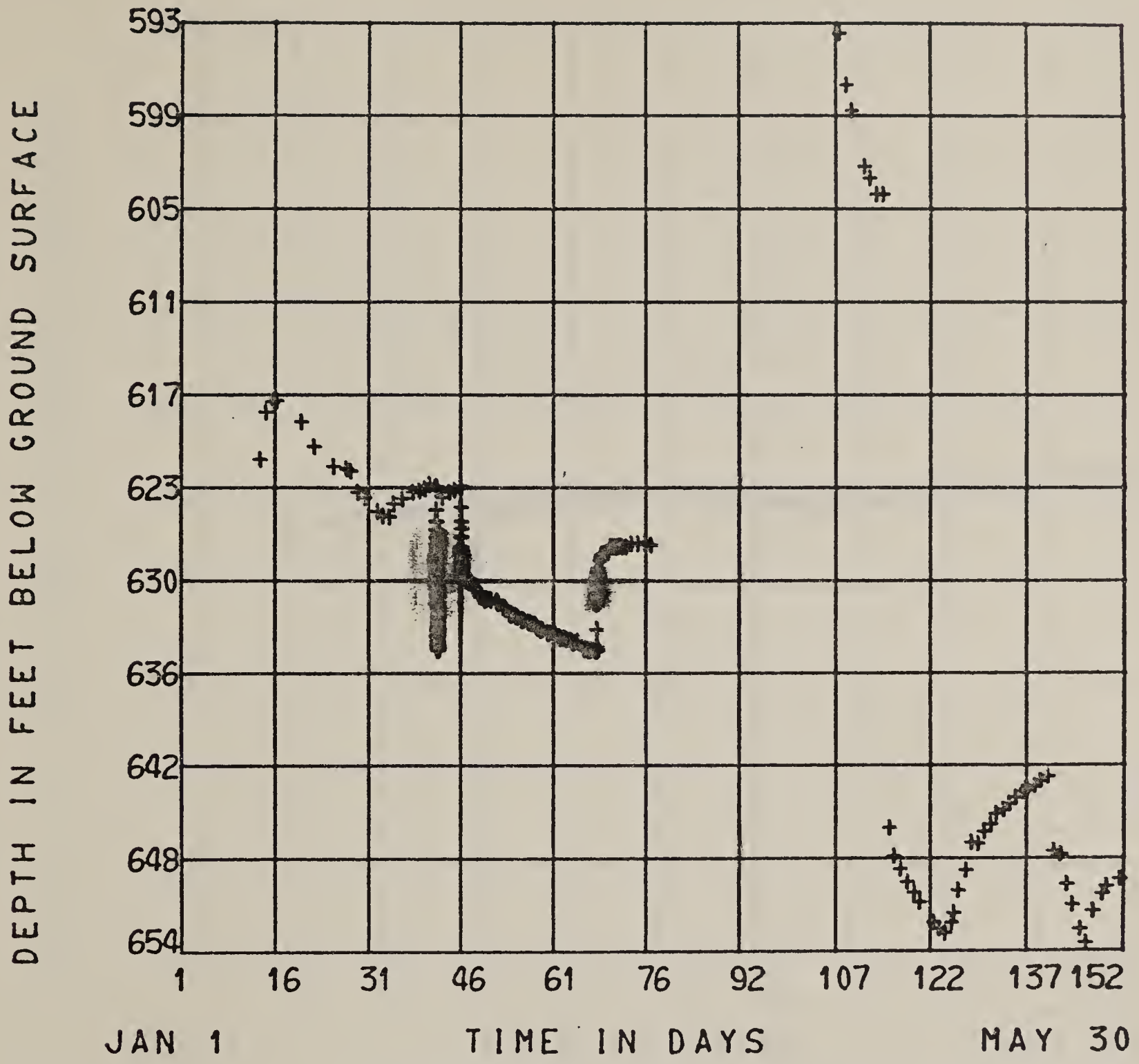
GS-11 HYDROGRAPH UPPR AQUIFER



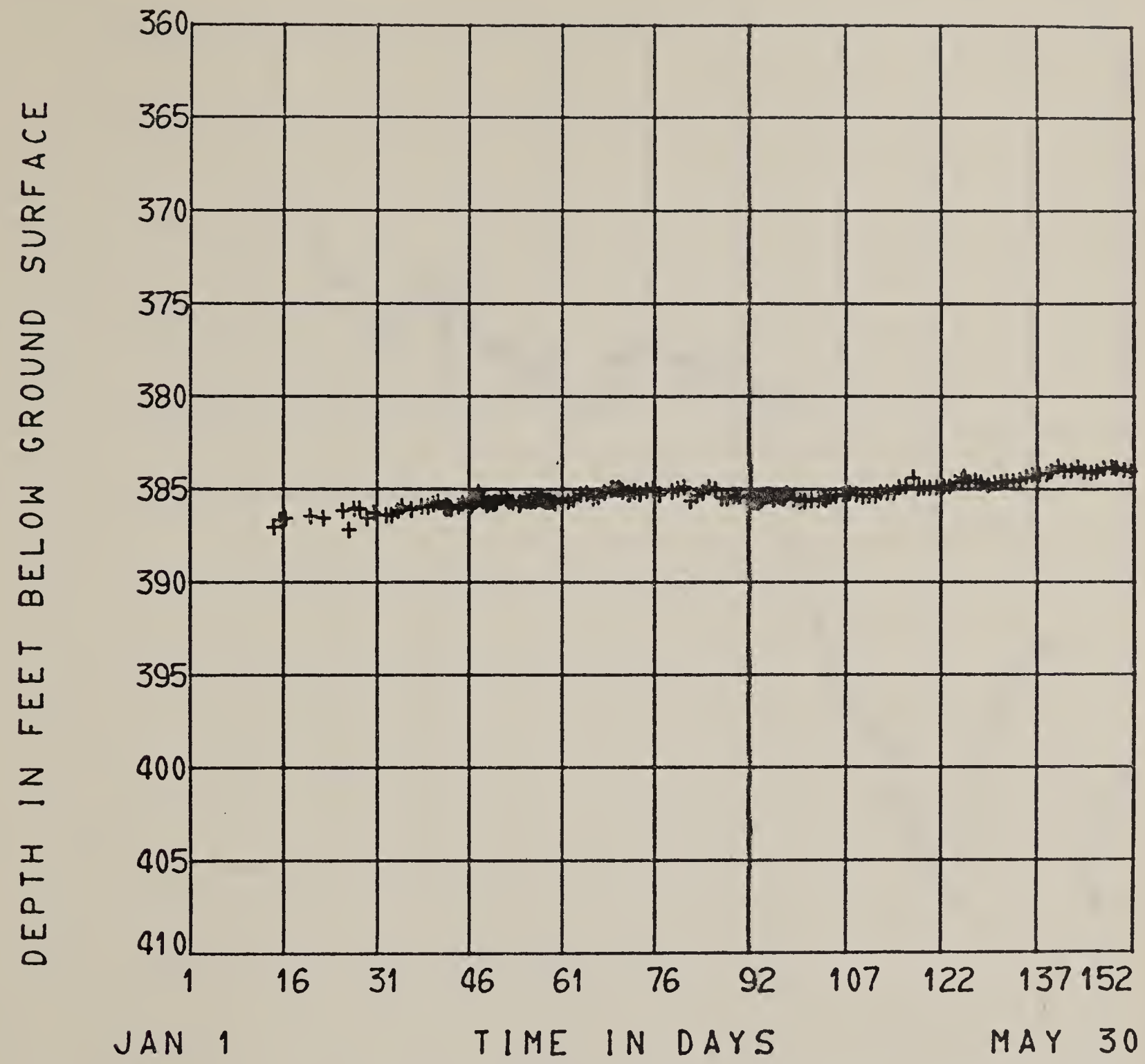
GS-11 HYDROGRAPH LOWR AQUIFER



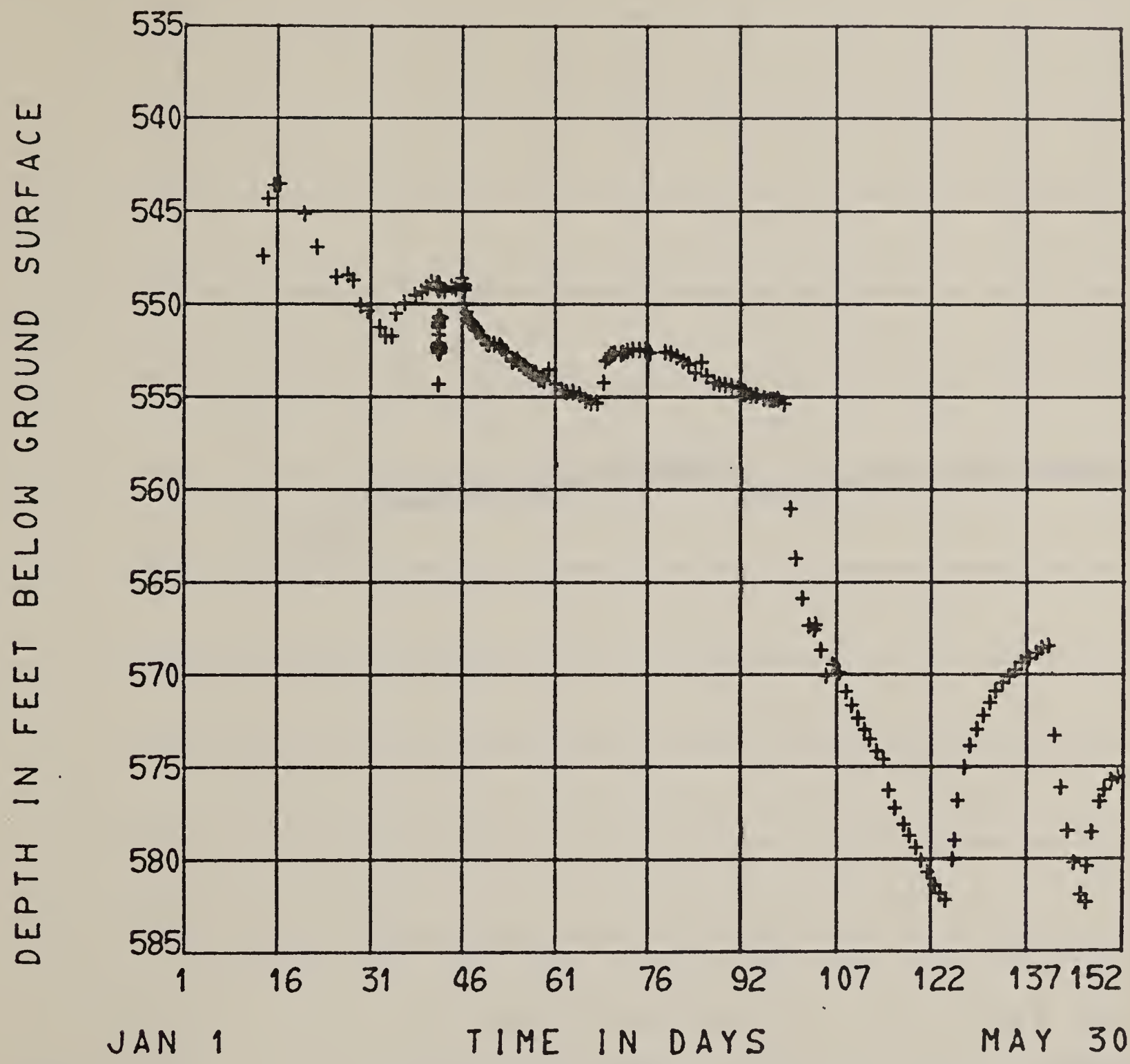
GS-12 HYDROGRAPH UPPR AQUIFER



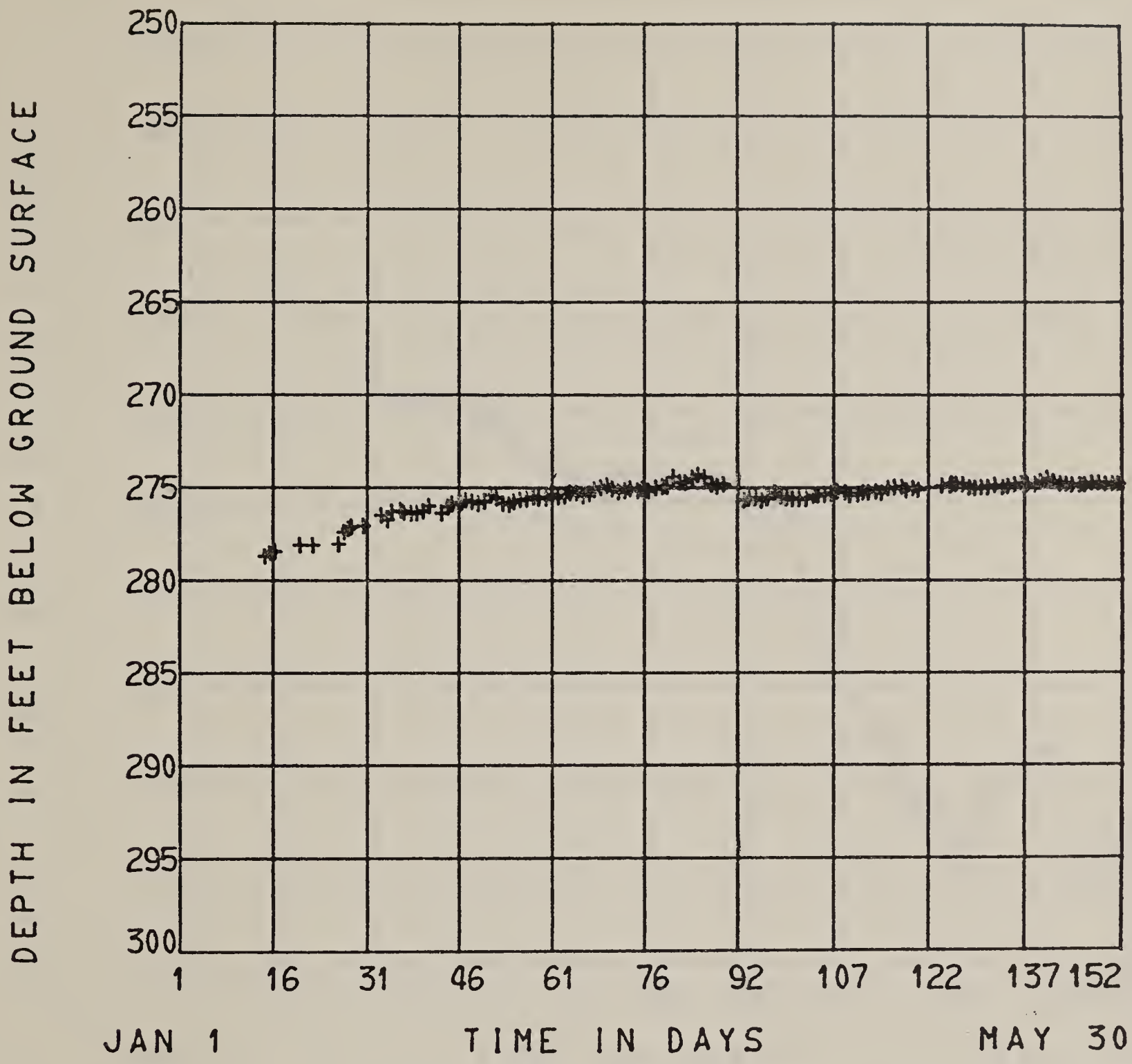
GS-12 HYDROGRAPH LOWR AQUIFER



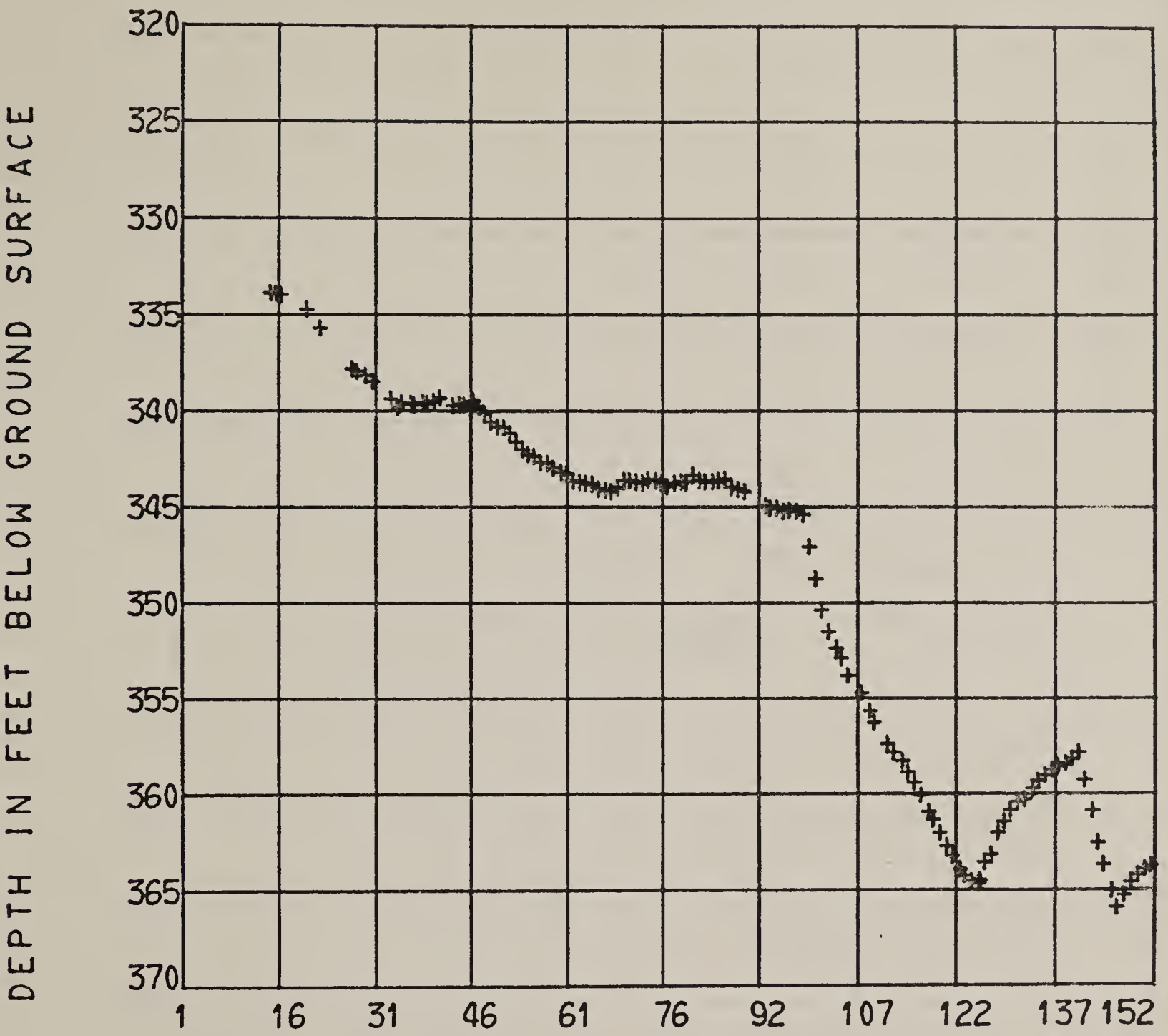
GS-13 HYDROGRAPH UPPR AQUIFER



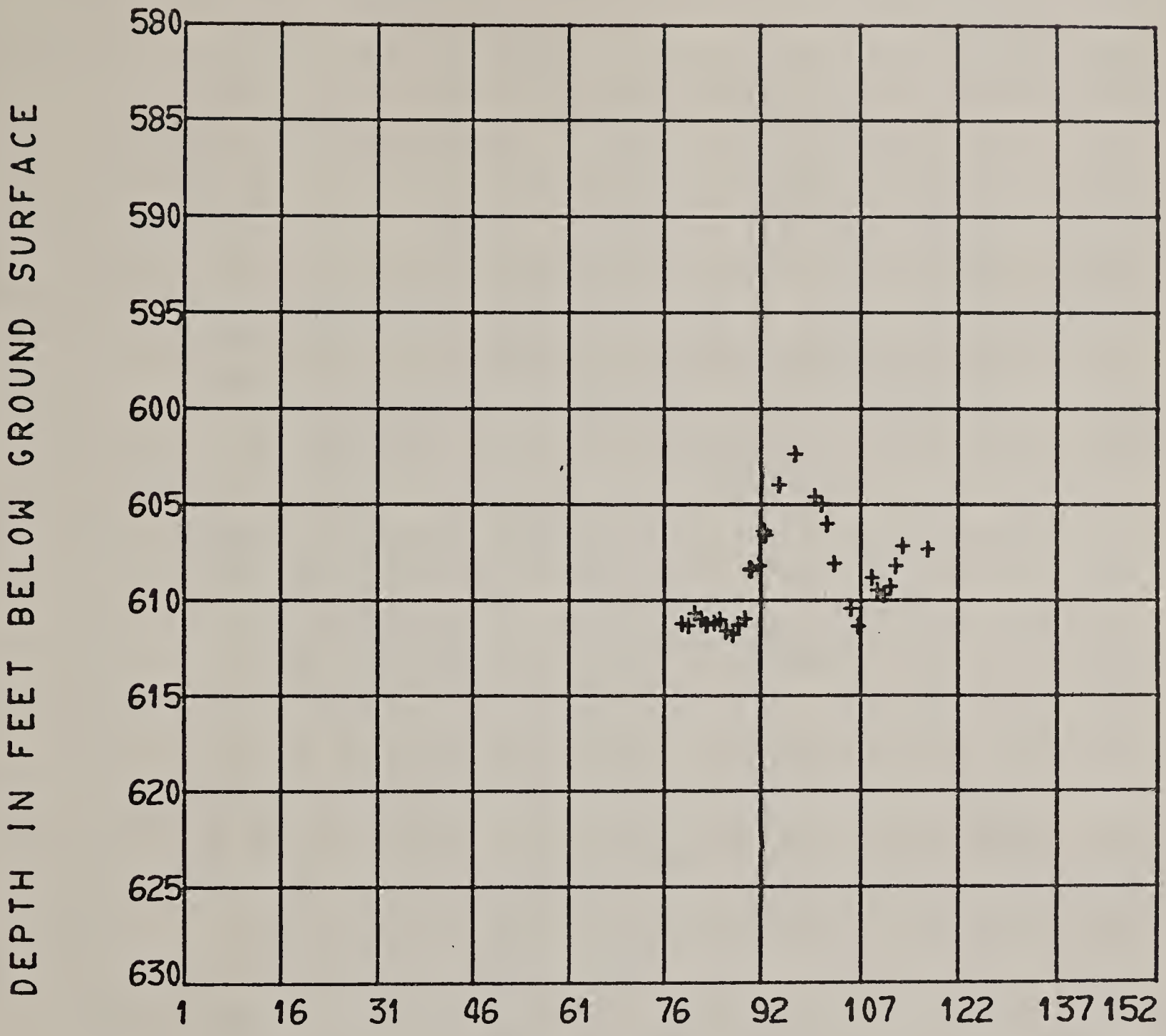
GS-13 HYDROGRAPH LOWR AQUIFER



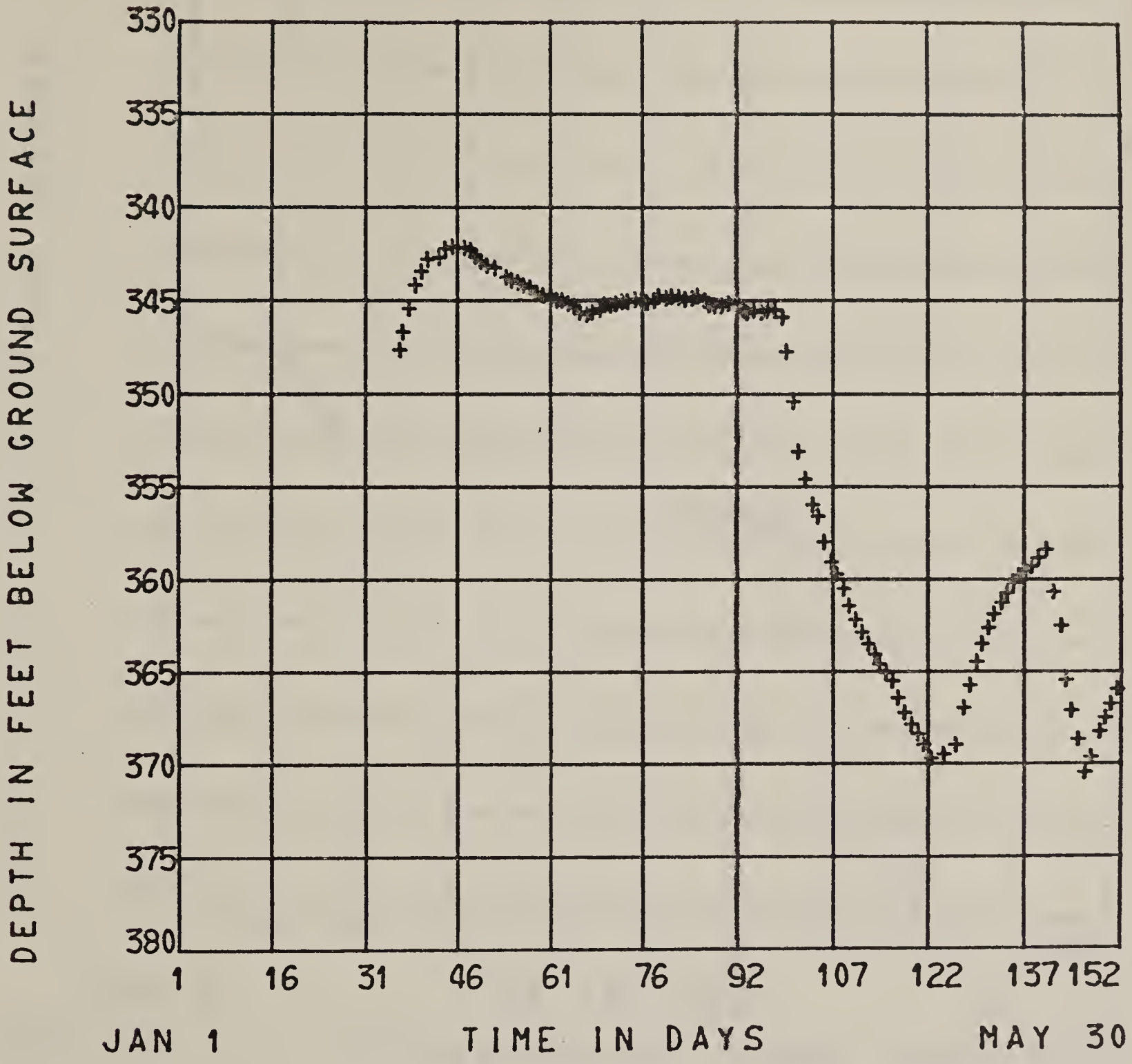
GS-15 HYDROGRAPH UPPR AQUIFER



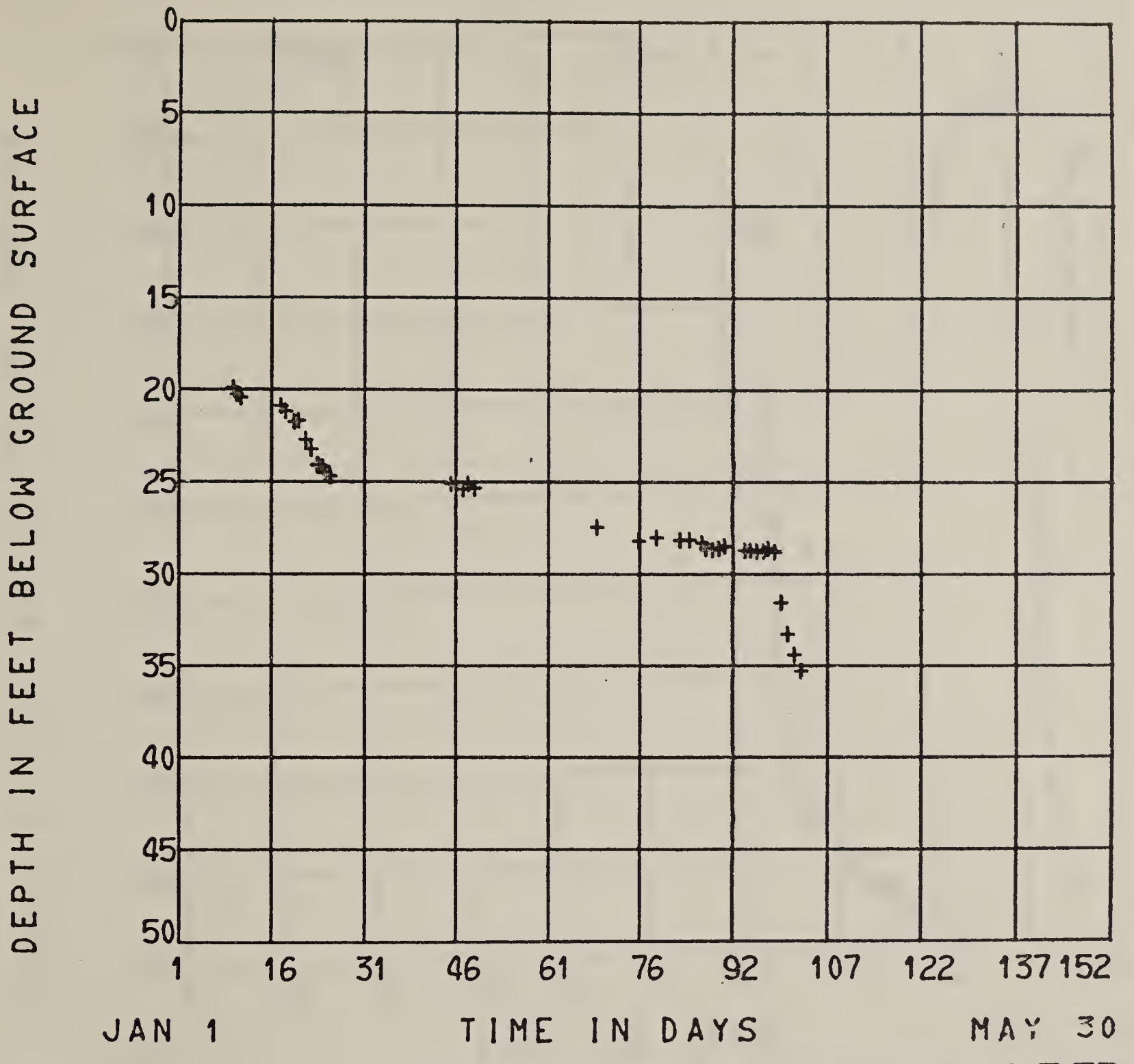
GS-15 HYDROGRAPH LOWR AQUIFER



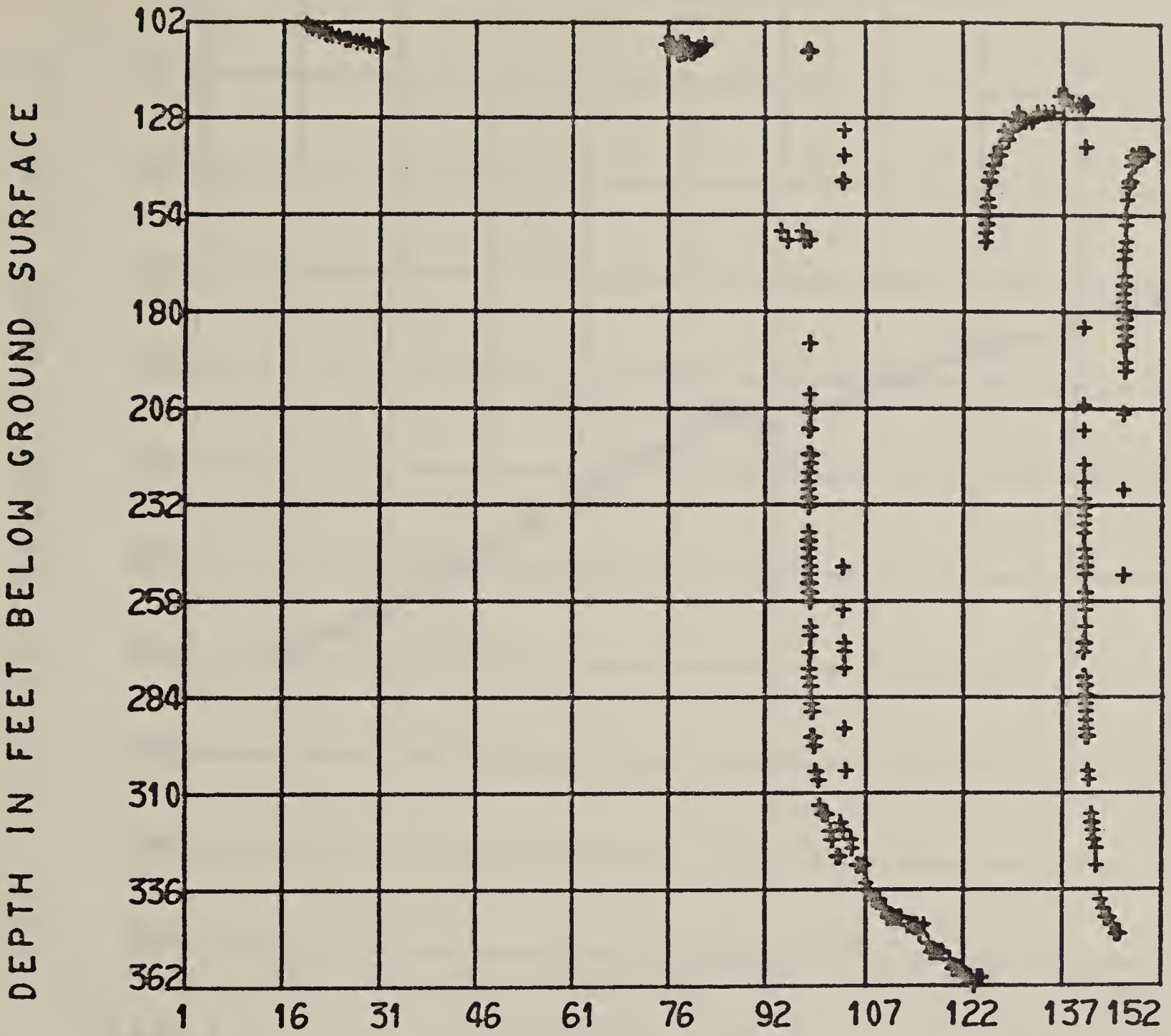
GS-16 HYDROGRAPH LOWR AQUIFER



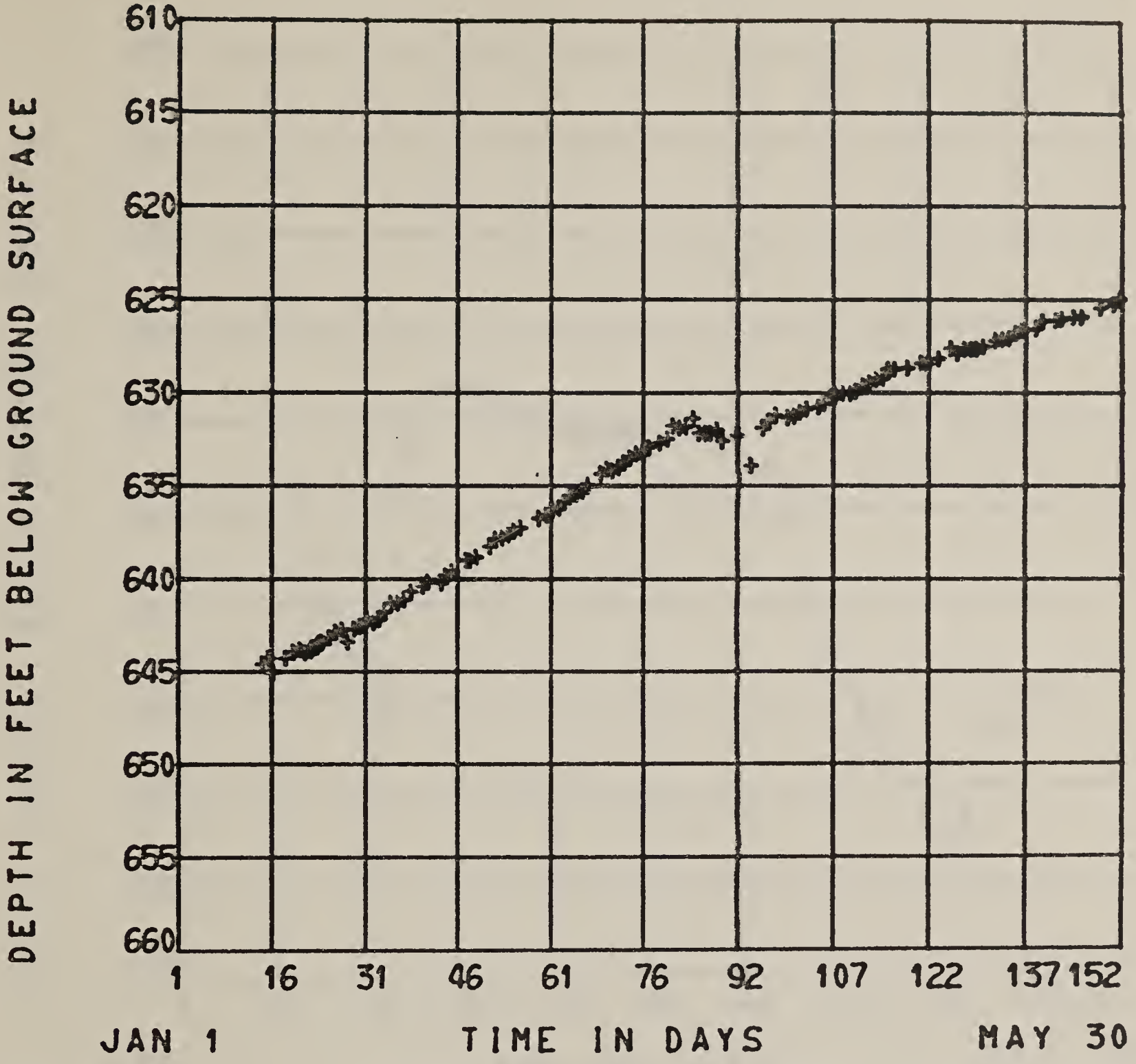
GS-17 HYDROGRAPH LOWR AQUIFER



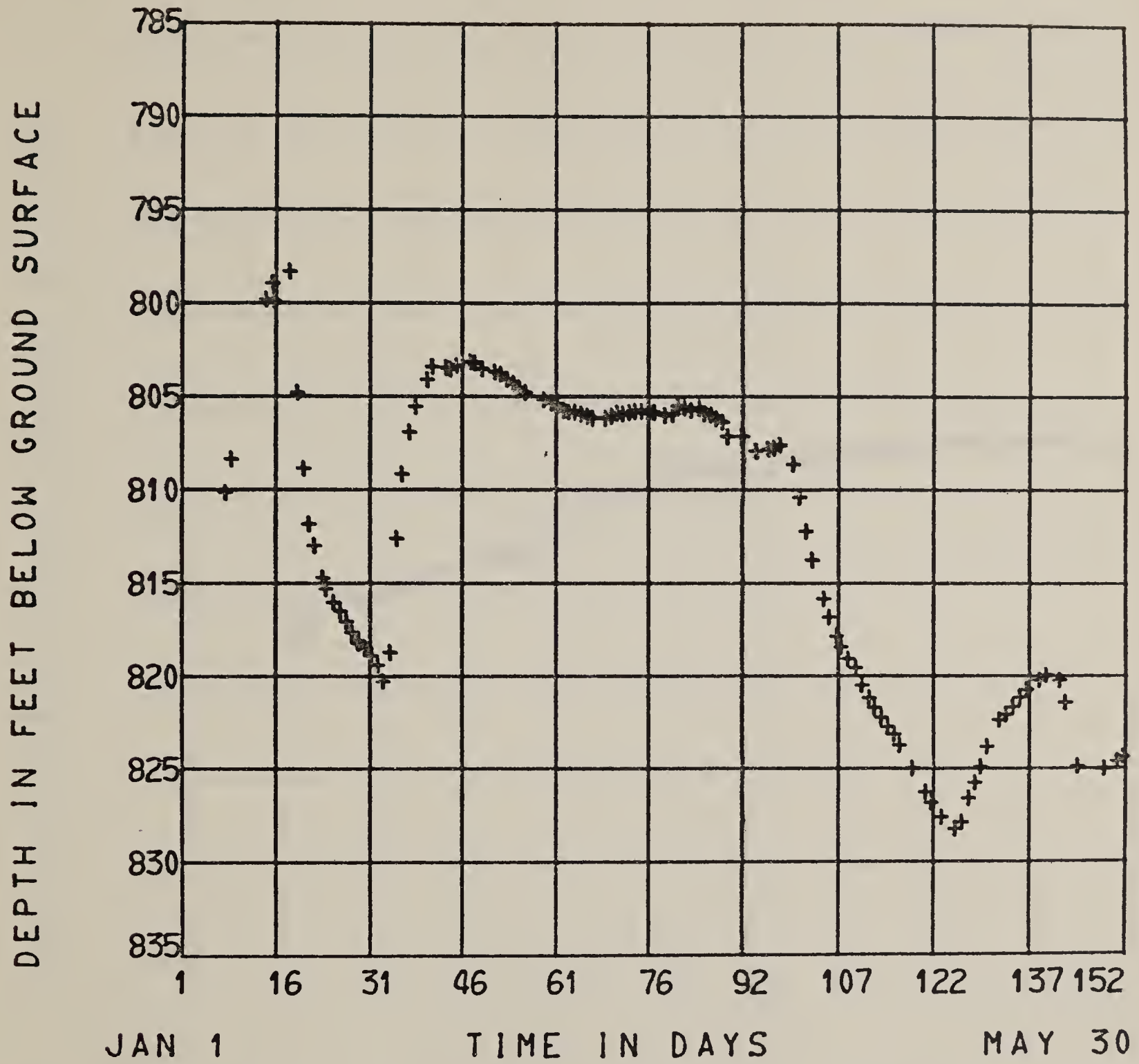
GS-18 HYDROGRAPH LOWR AQUIFER



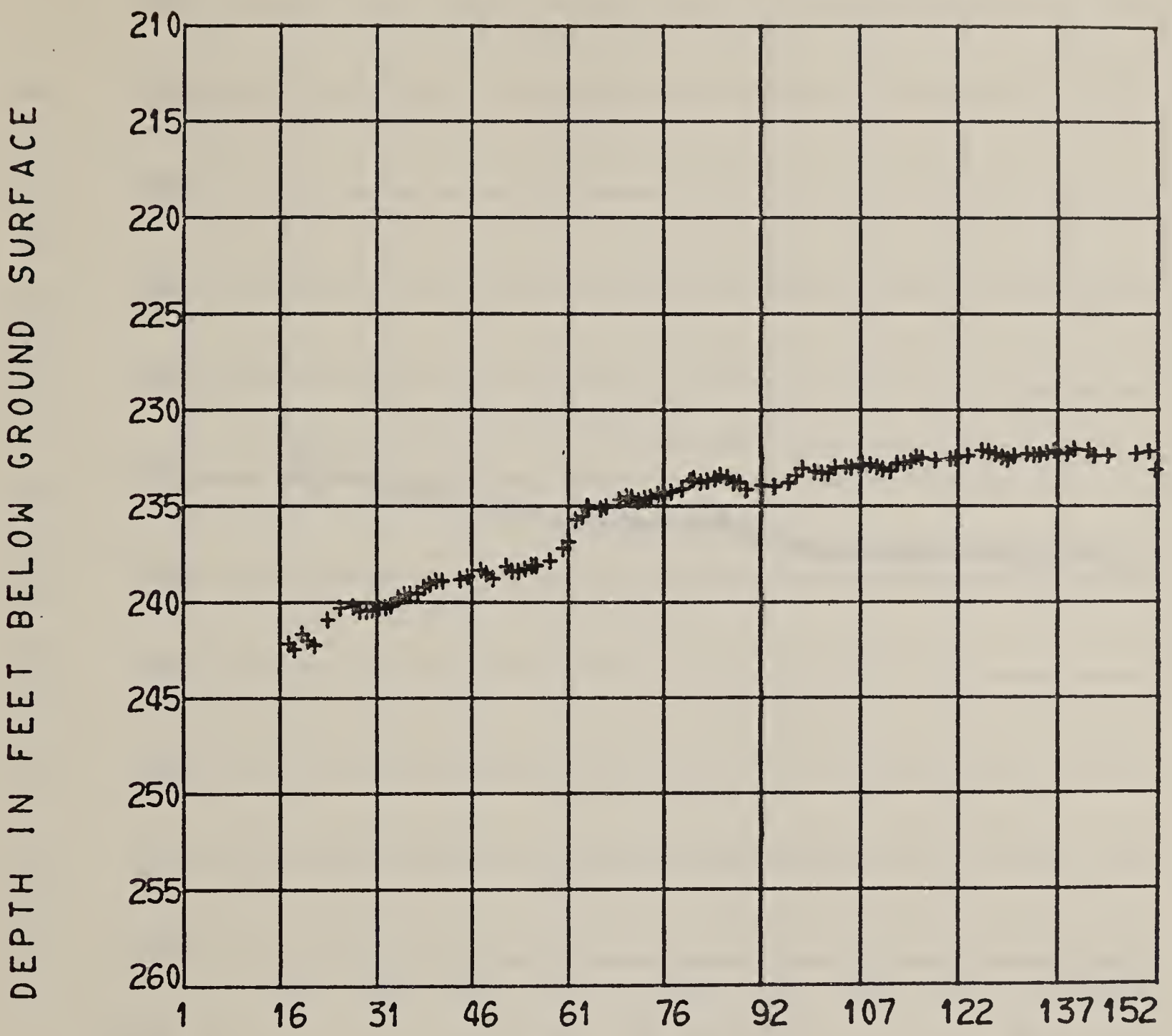
GS-19 HYDROGRAPH LOWR AQUIFER



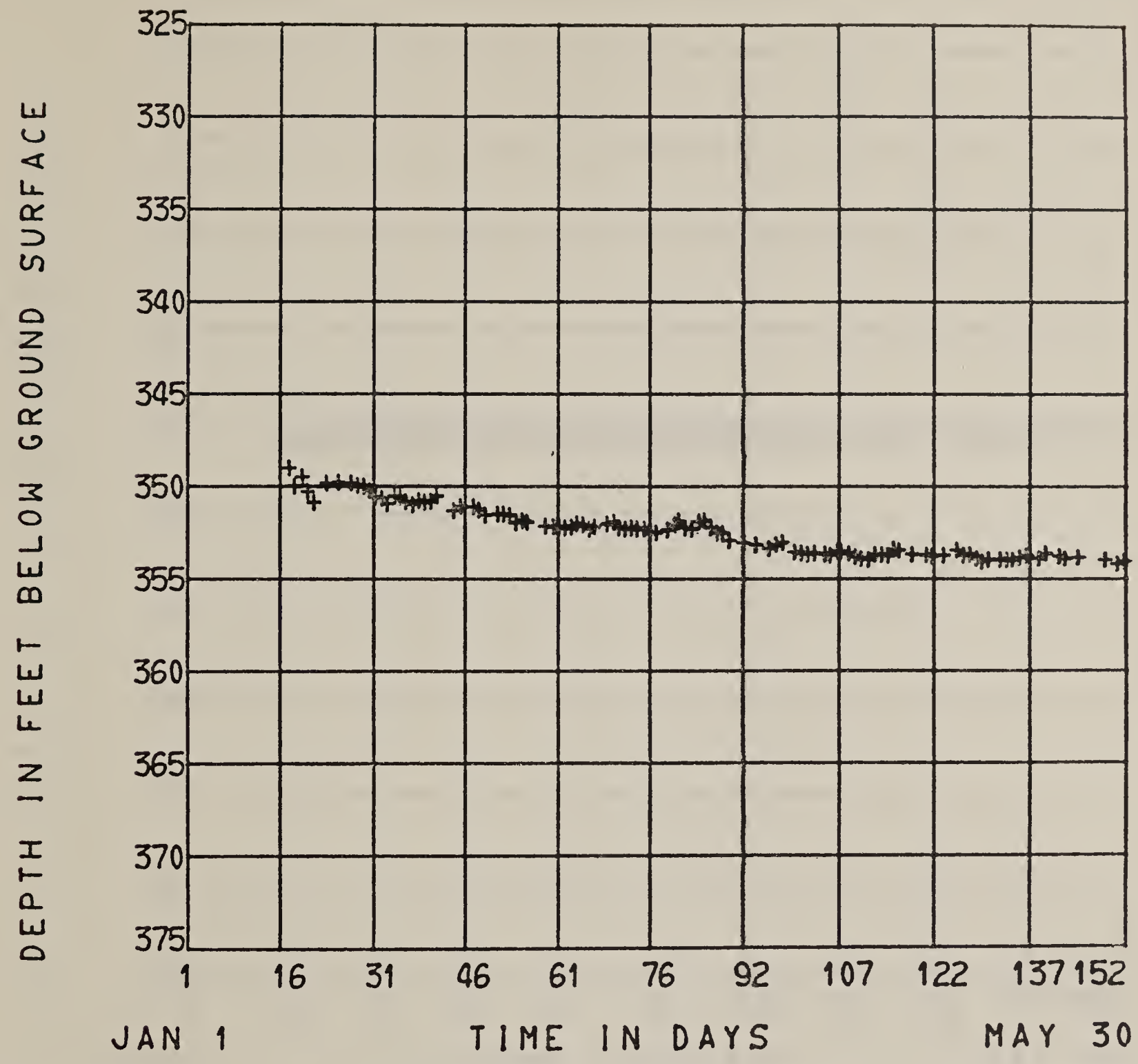
GSM-1 HYDROGRAPH UPPR AQUIFER



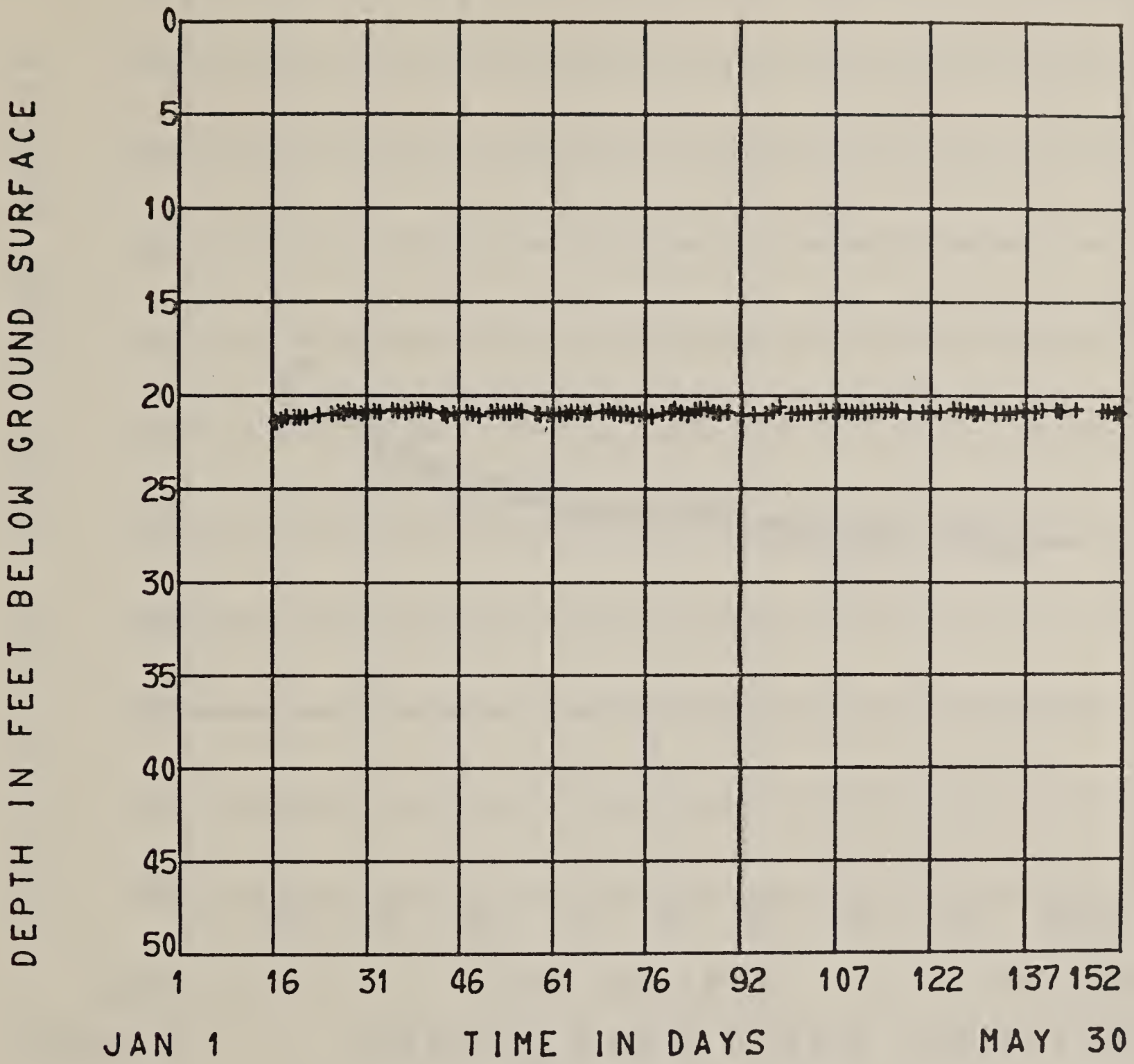
GSM-1 HYDROGRAPH LOWR AQUIFER



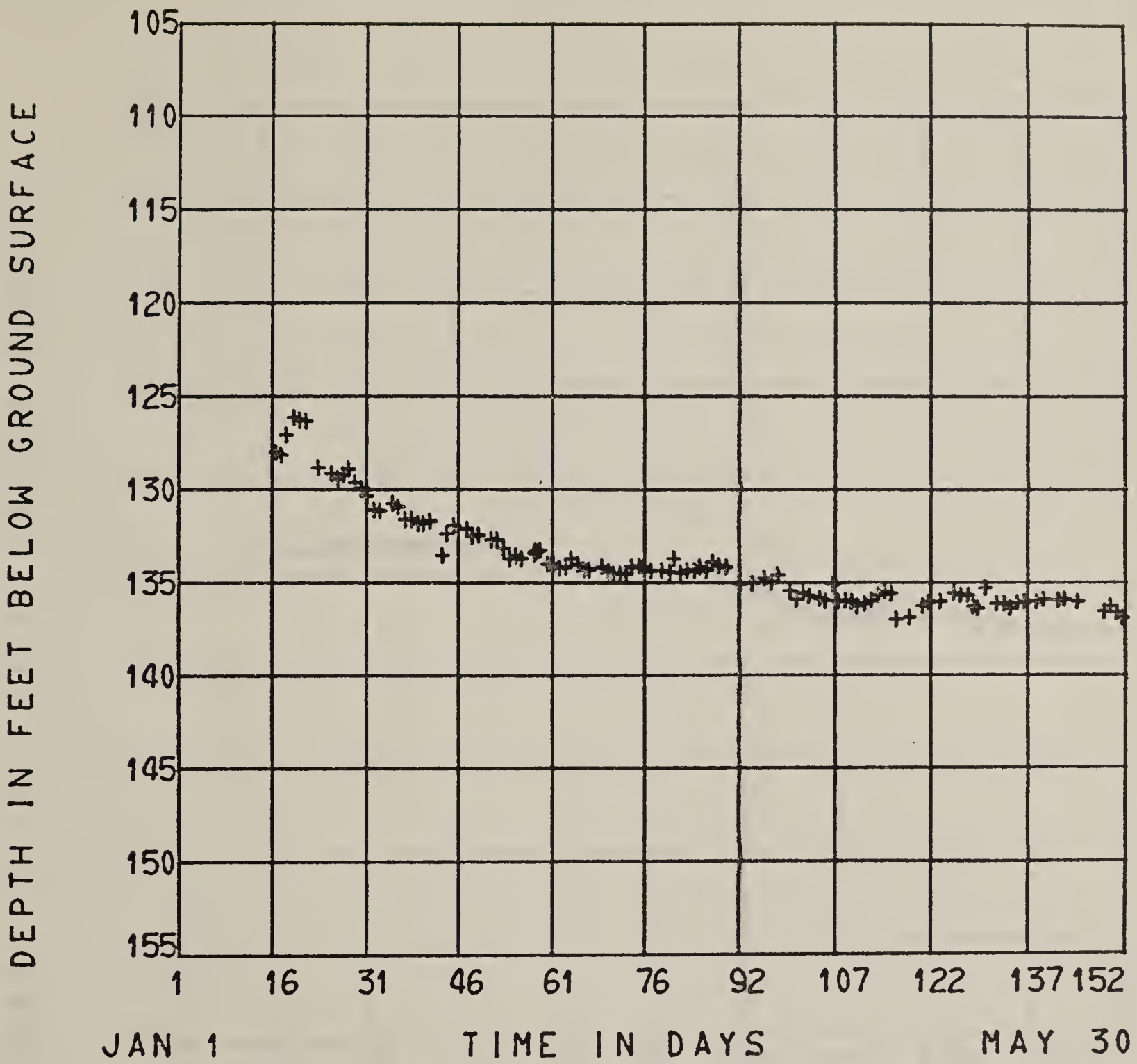
GSM-2 HYDROGRAPH UPPR AQUIFER



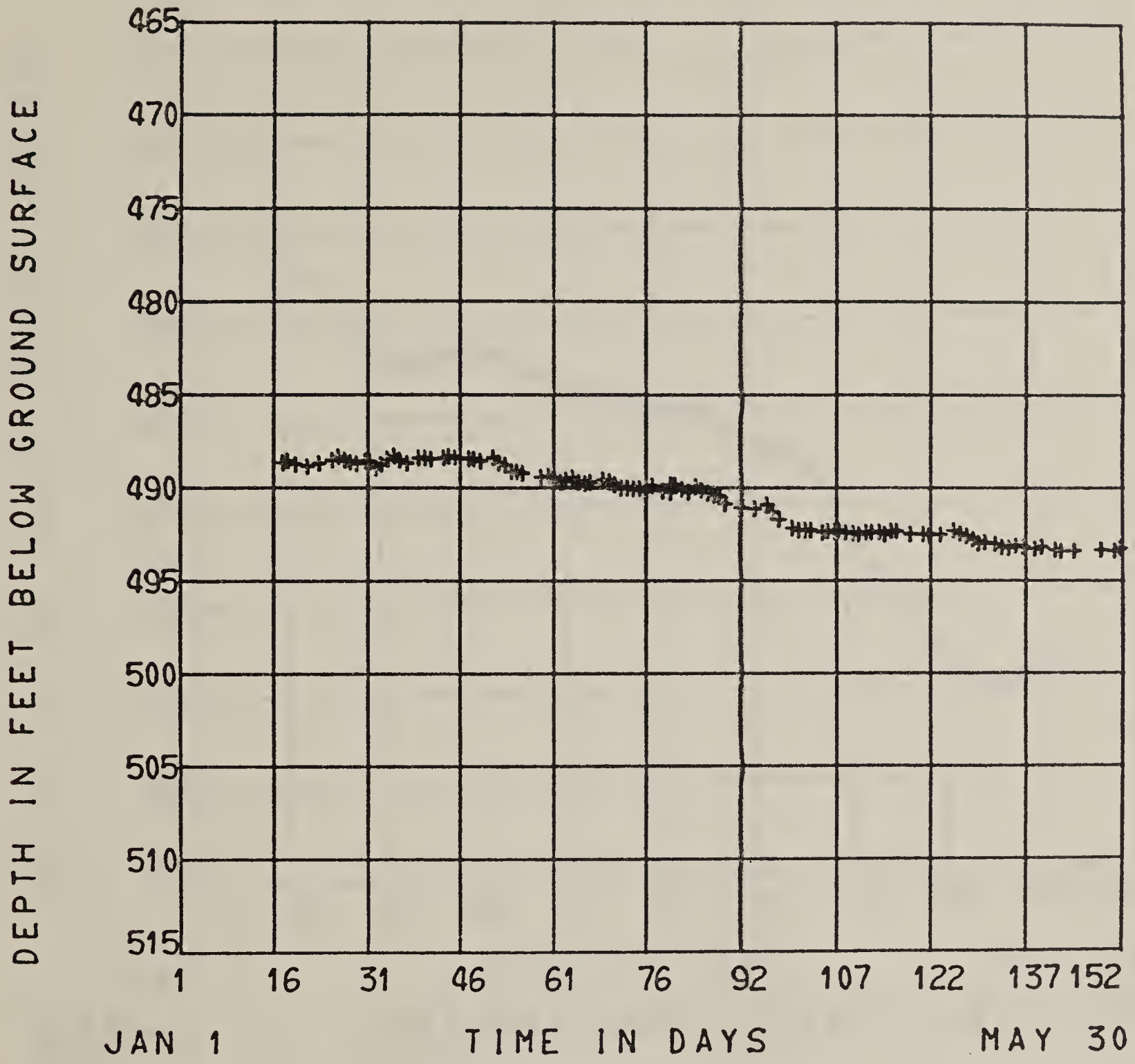
GSM-2 HYDROGRAPH LOWR AQUIFER



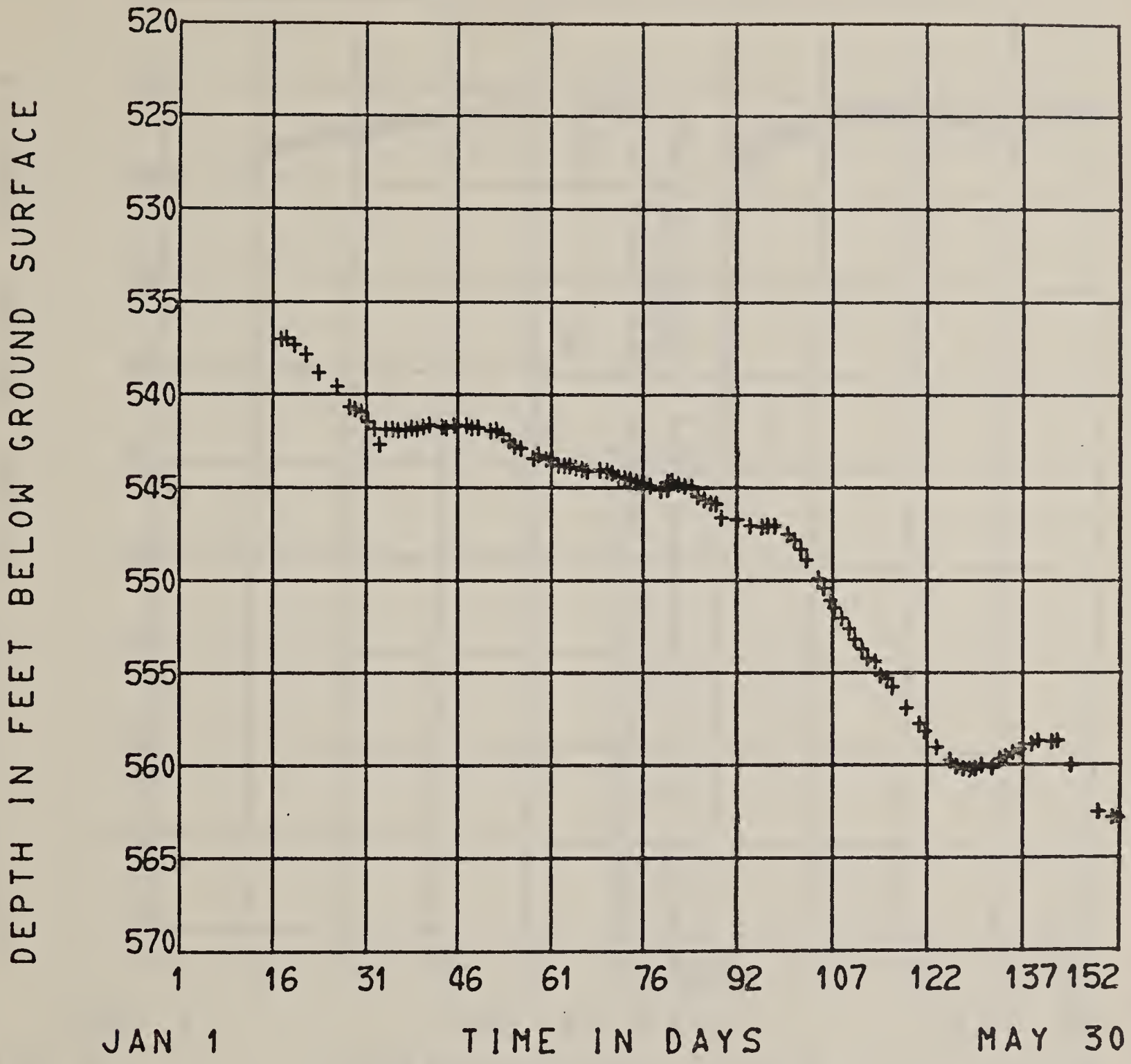
GSM-3 HYDROGRAPH UPPR AQUIFER



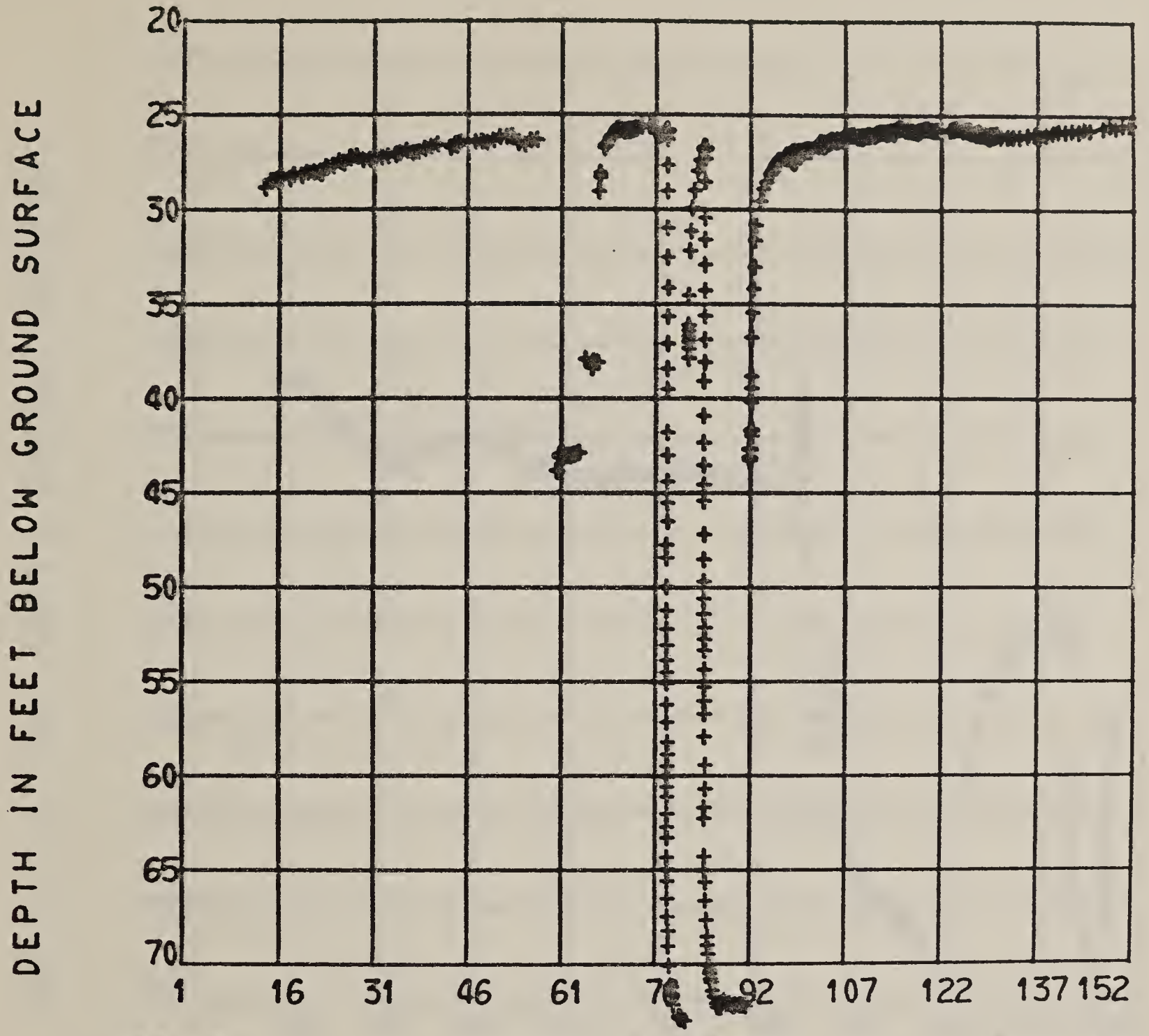
GSM-3 HYDROGRAPH LOWR AQUIFER



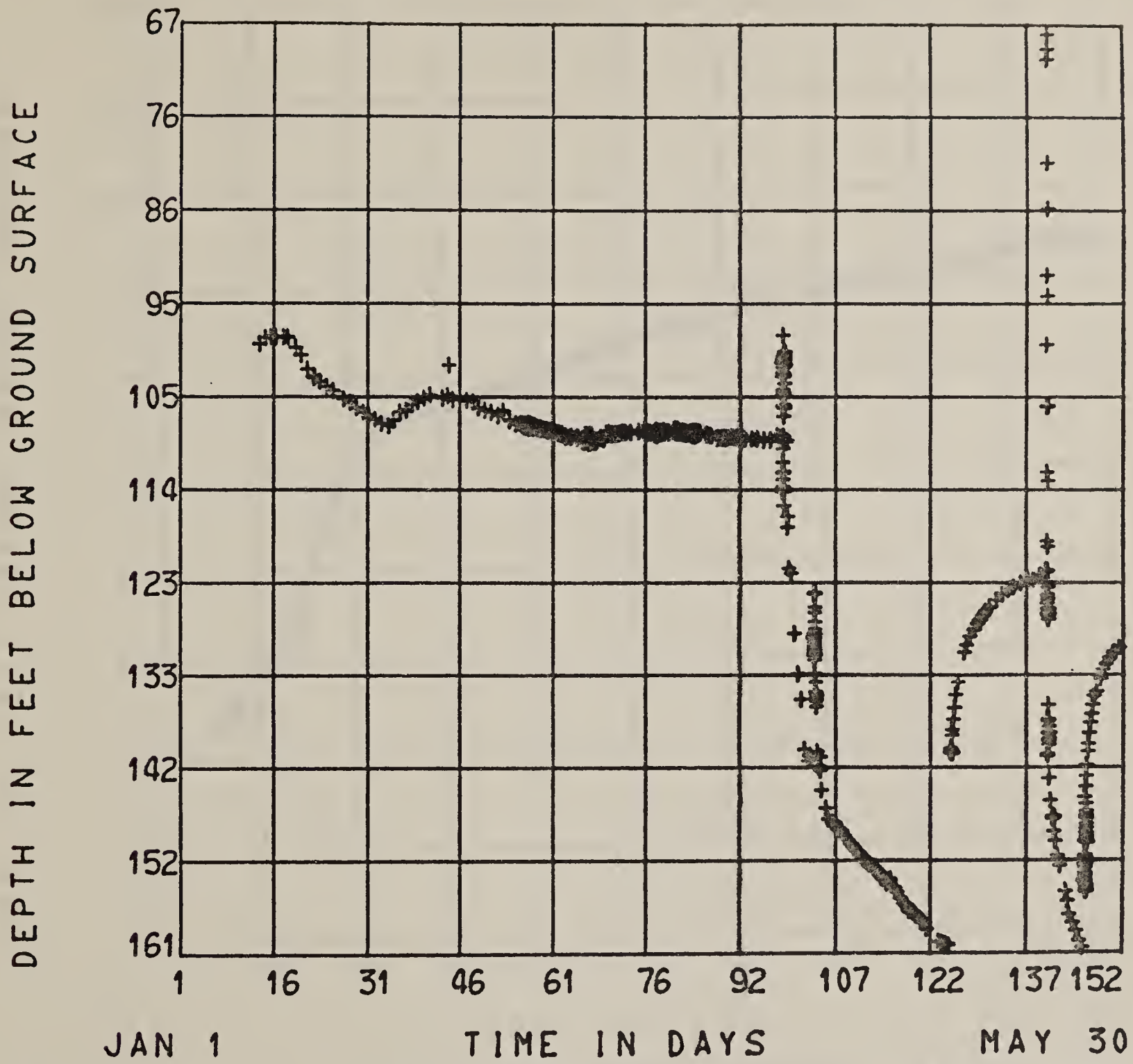
GSM-4 HYDROGRAPH UPPR AQUIFER



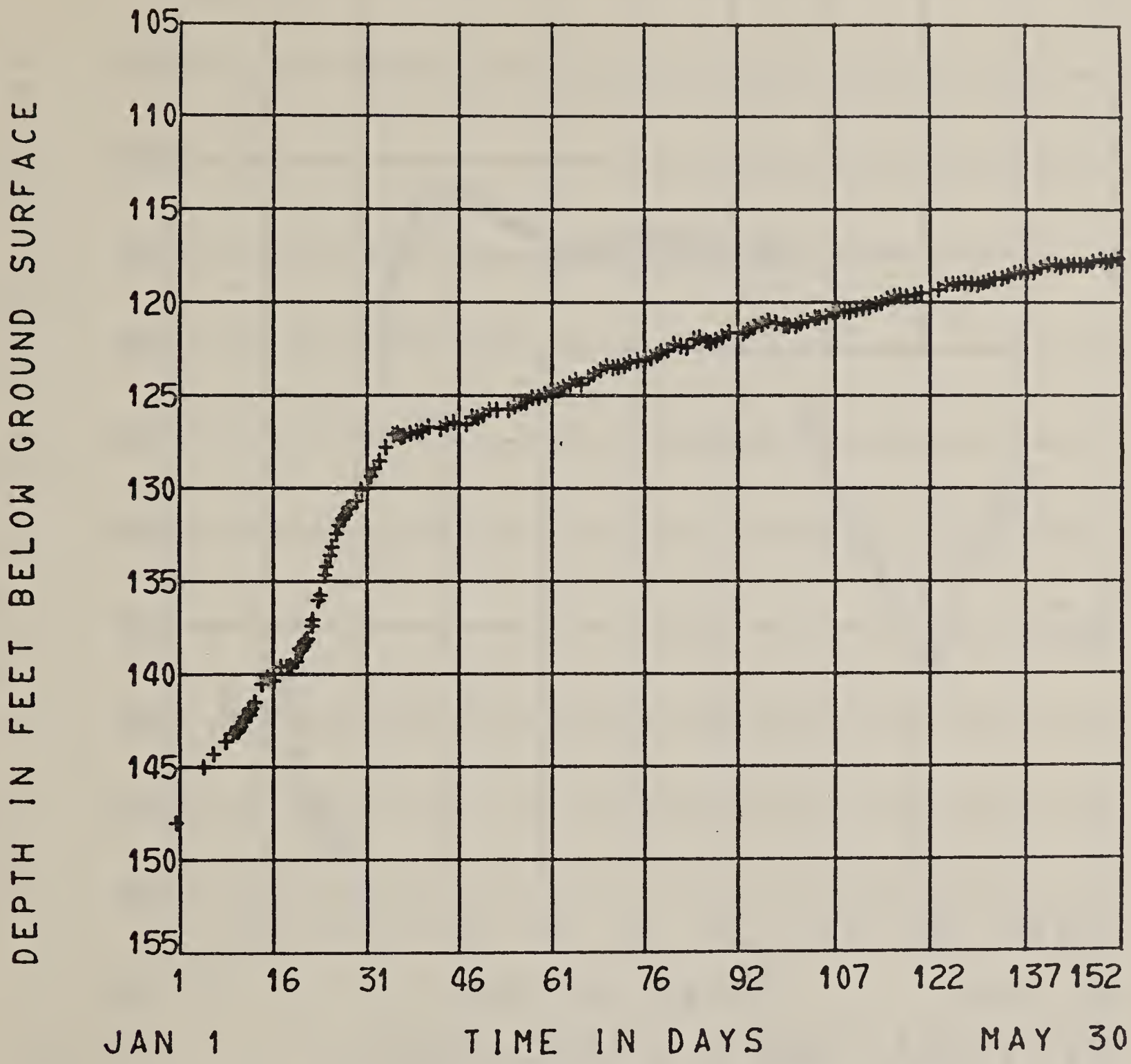
GSM-4 HYDROGRAPH LOWR AQUIFER



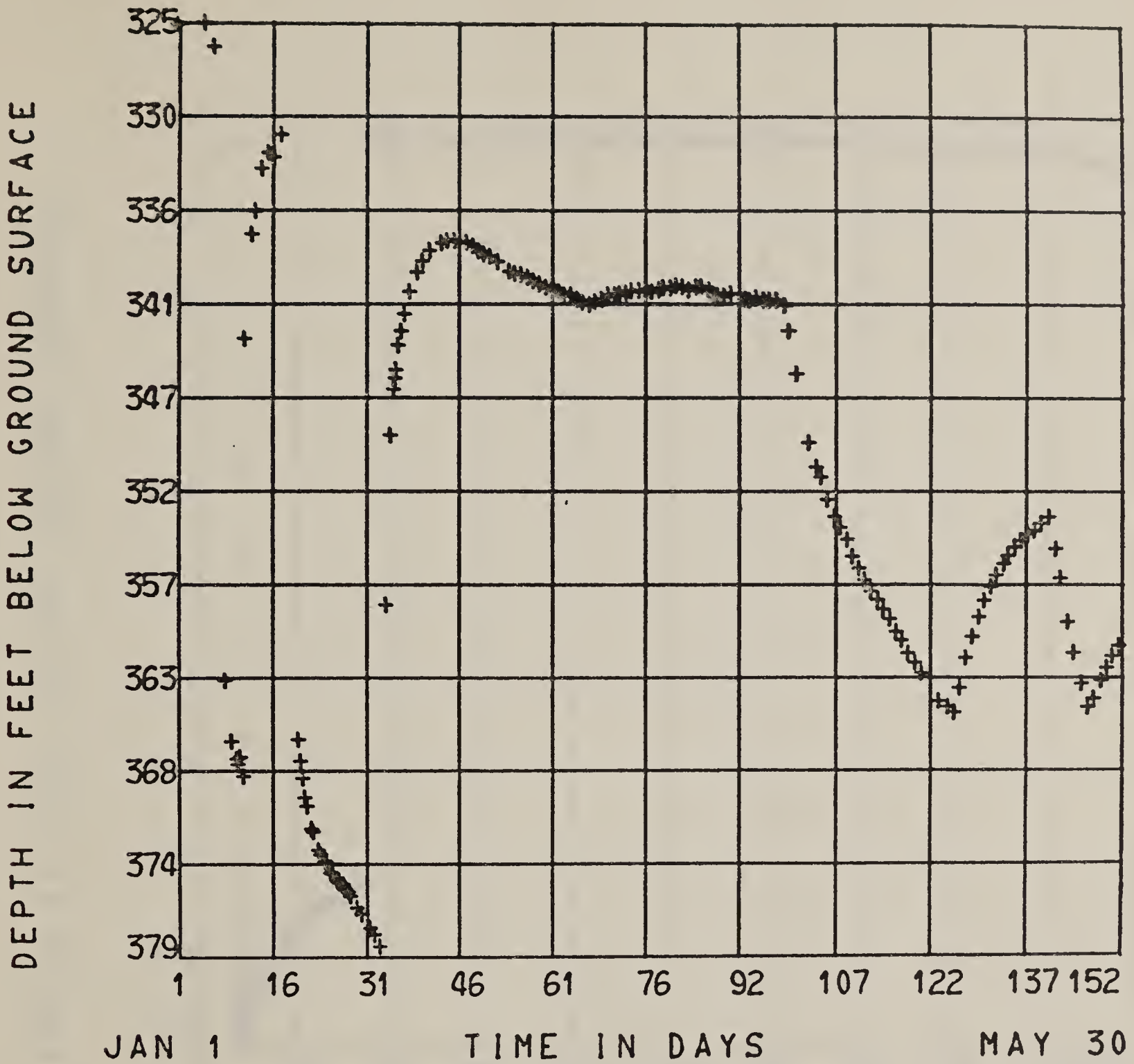
TO-1 HYDROGRAPH UPPR AQUIFER



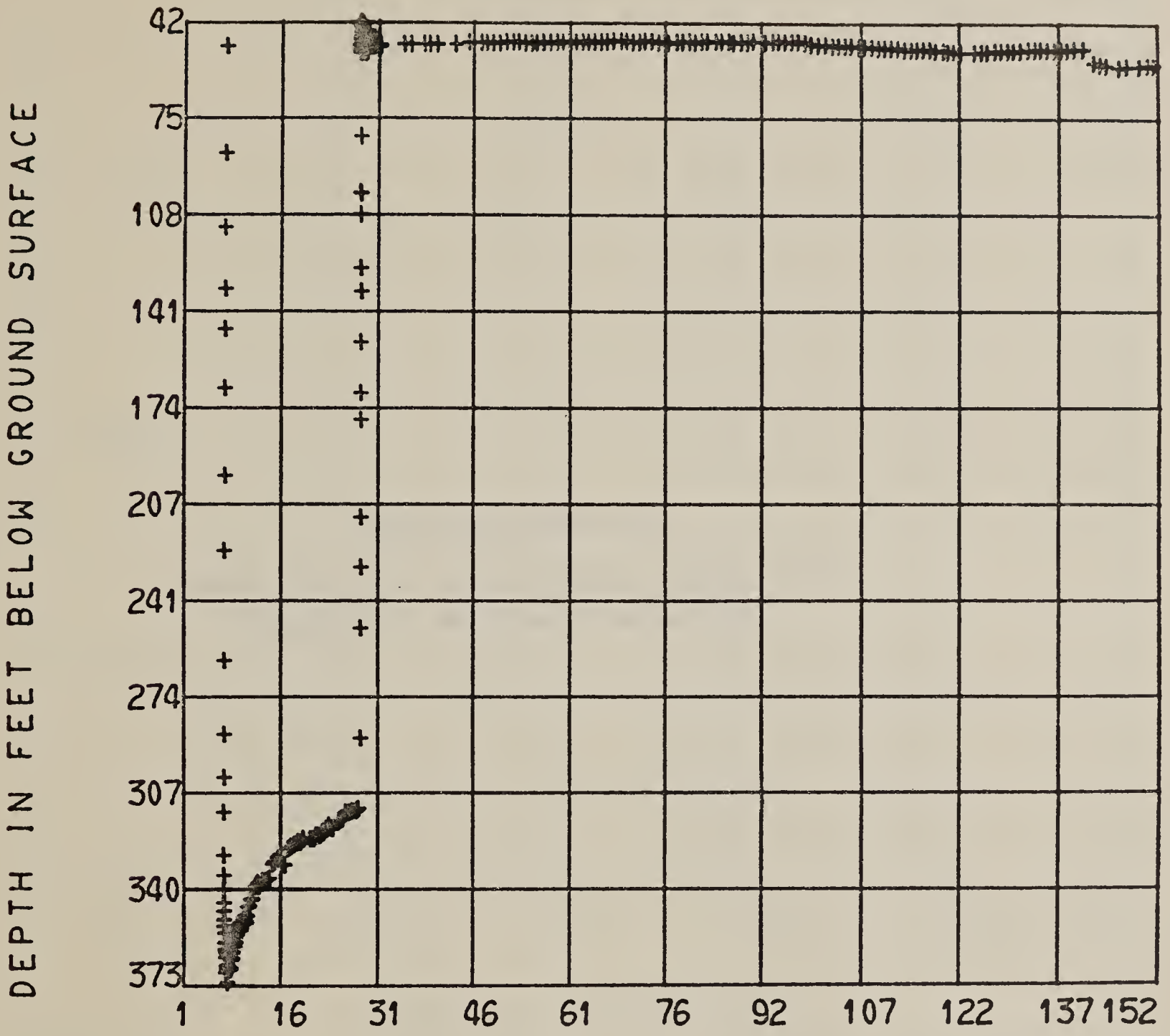
TO-1 HYDROGRAPH LOWR AQUIFER



TO-2 HYDROGRAPH UPPR AQUIFER



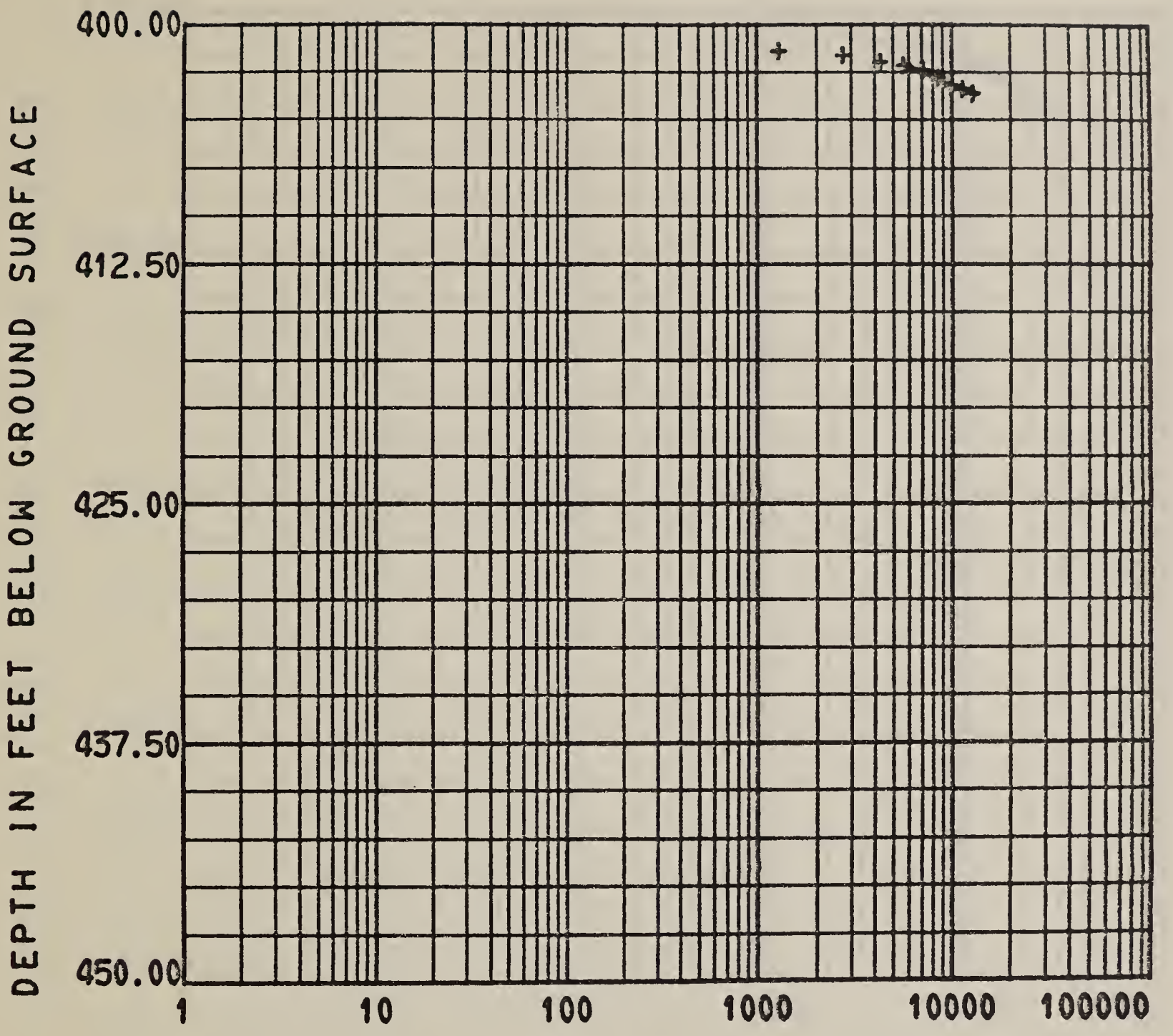
TO-2 HYDROGRAPH LOWR AQUIFER



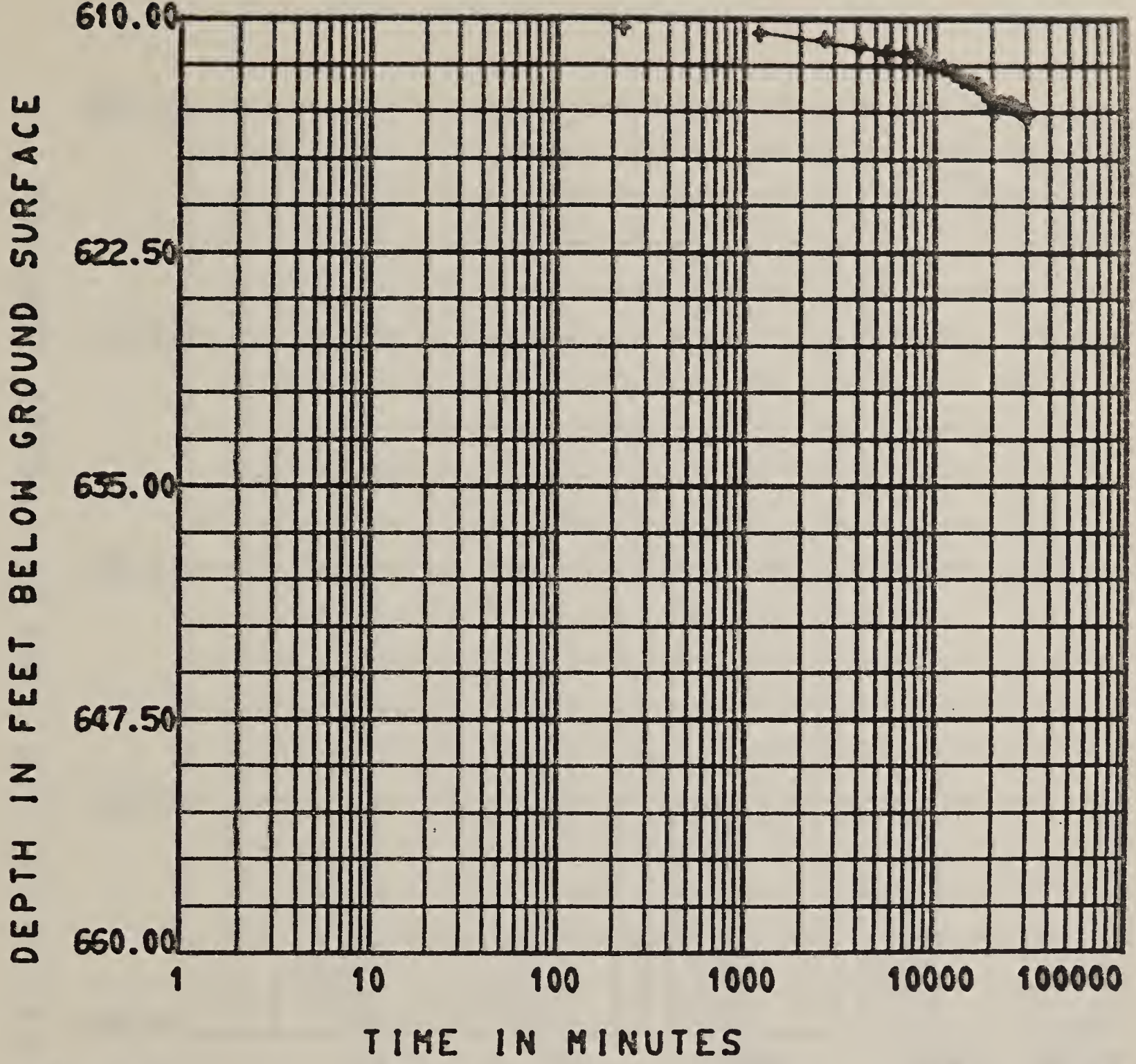
TO-3 HYDROGRAPH UPPR AQUIFER

SIMPLIFIED JACOBS PLOTS

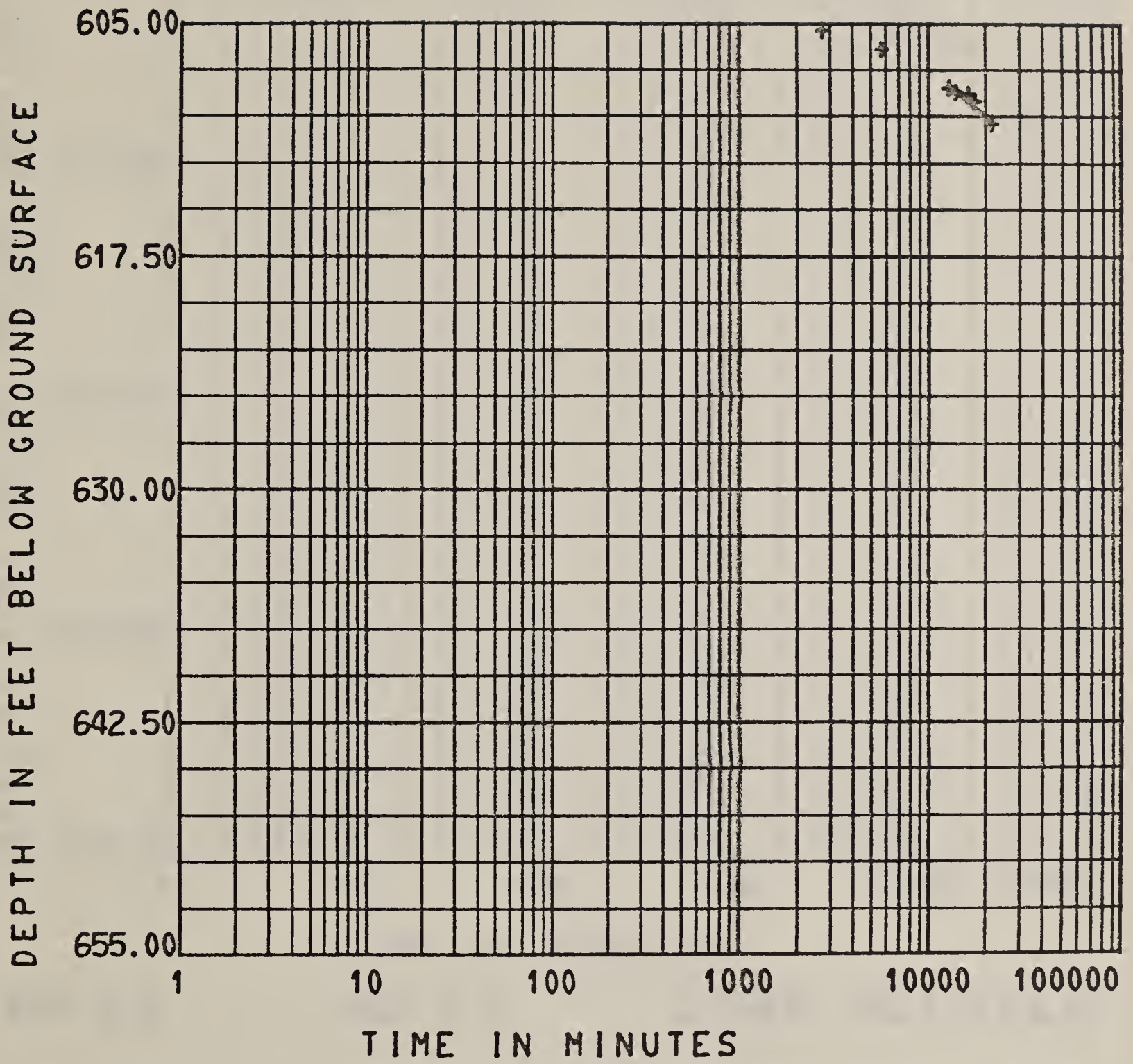
Pumping Test Holes and Deep Aquifer Monitor Holes Responding To Individual Pumping Tests



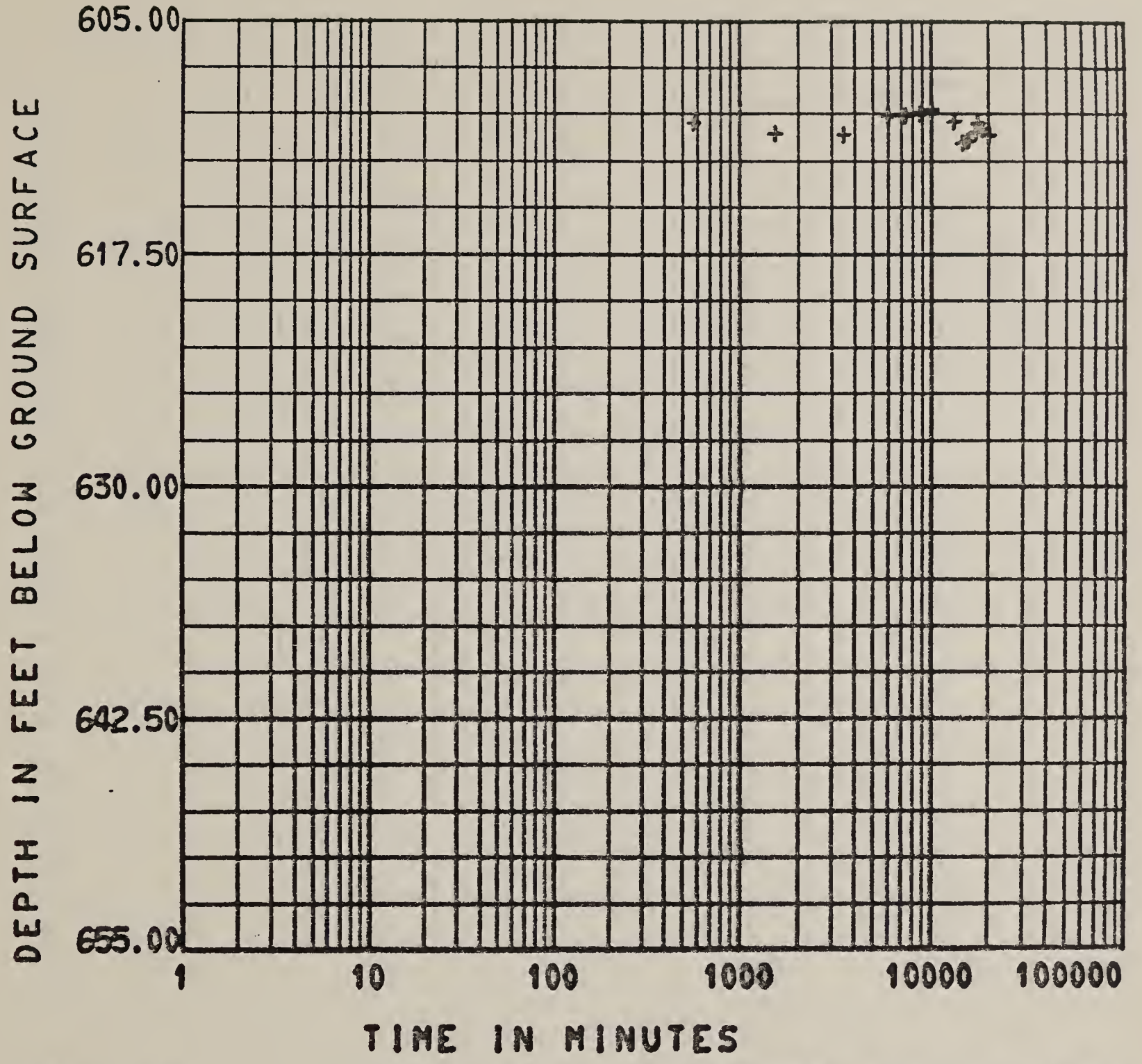
AM-2A GS-12 UPPR DRAWDOWN



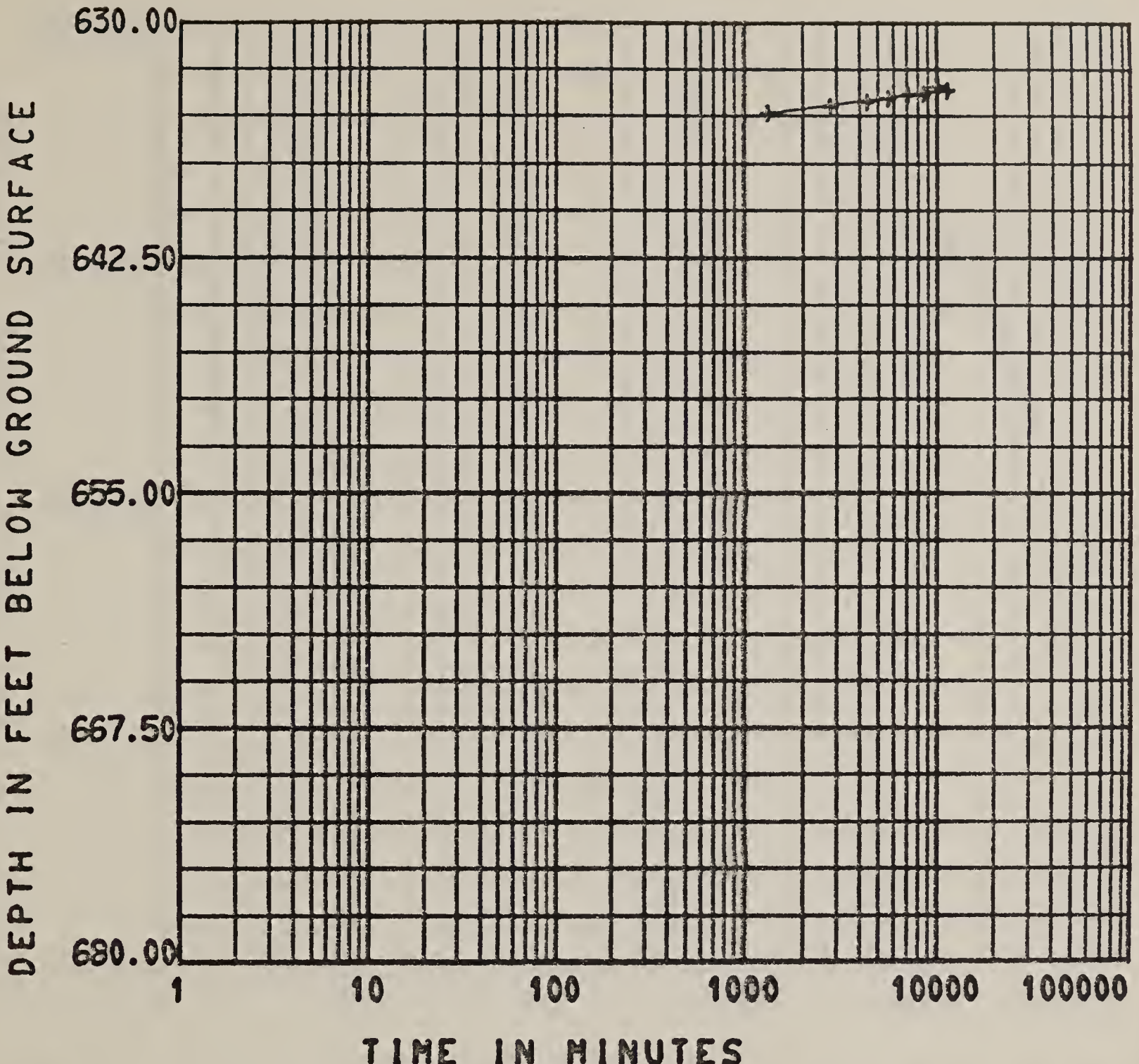
AM-2A GS-16 LOWR DRAWDOWN



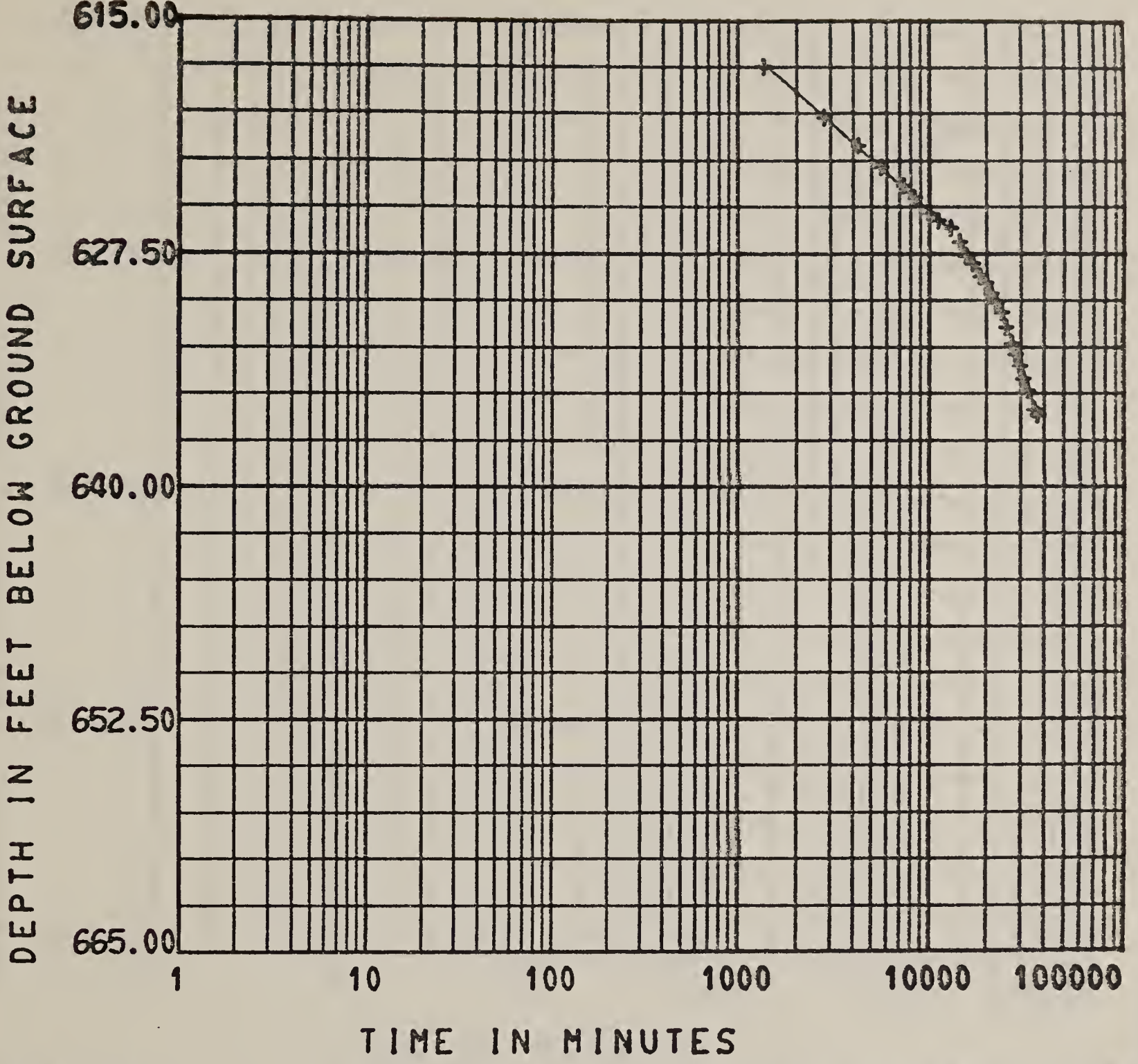
AM-2A GS-17 LOWR DRAWDOWN



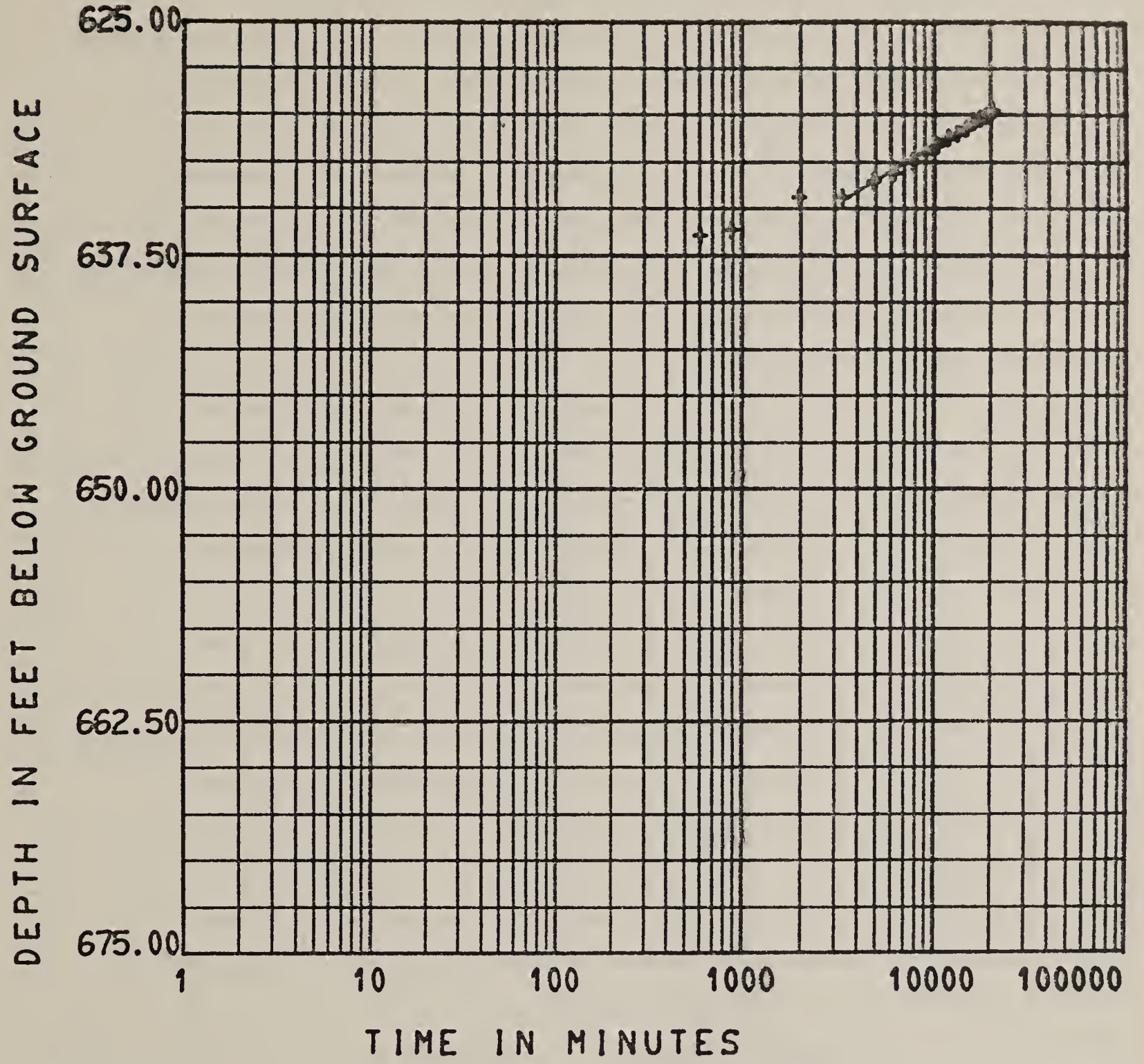
AM-2A GS-17 LOWR RECOVERY



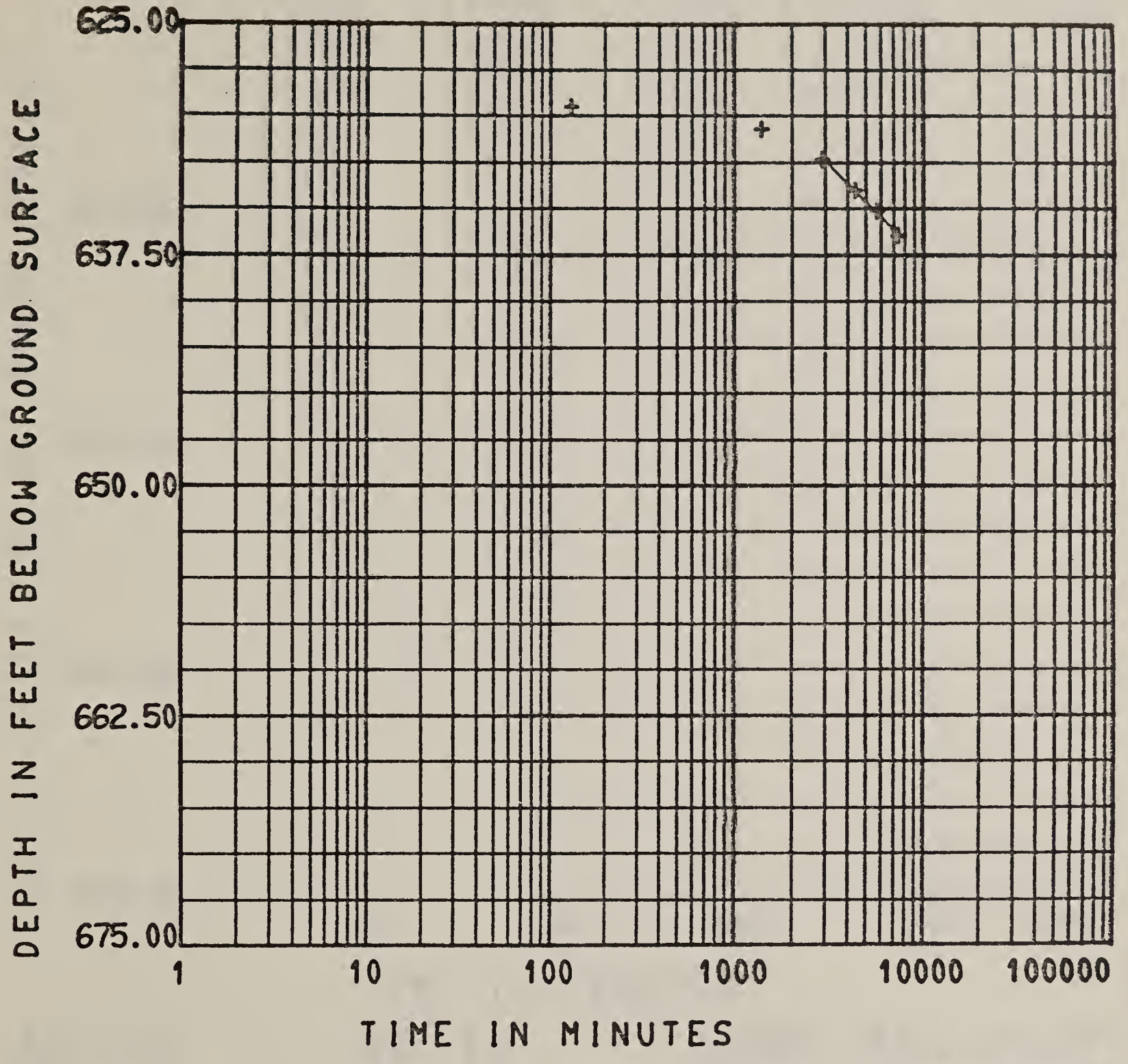
AM-2A GS-18 LOWR RECOVERY



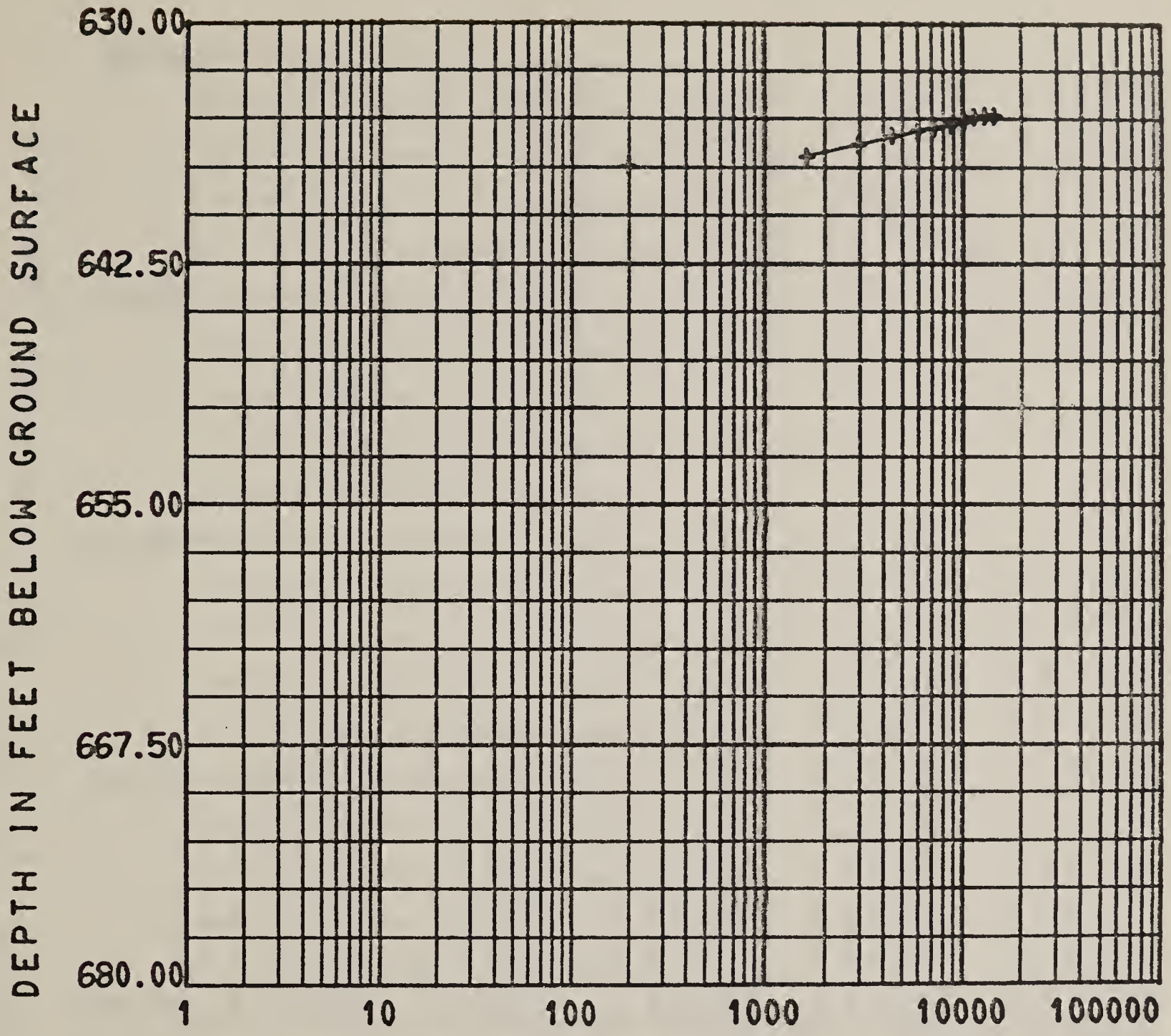
AM-2A GS-19 LOWR DRAWDOWN



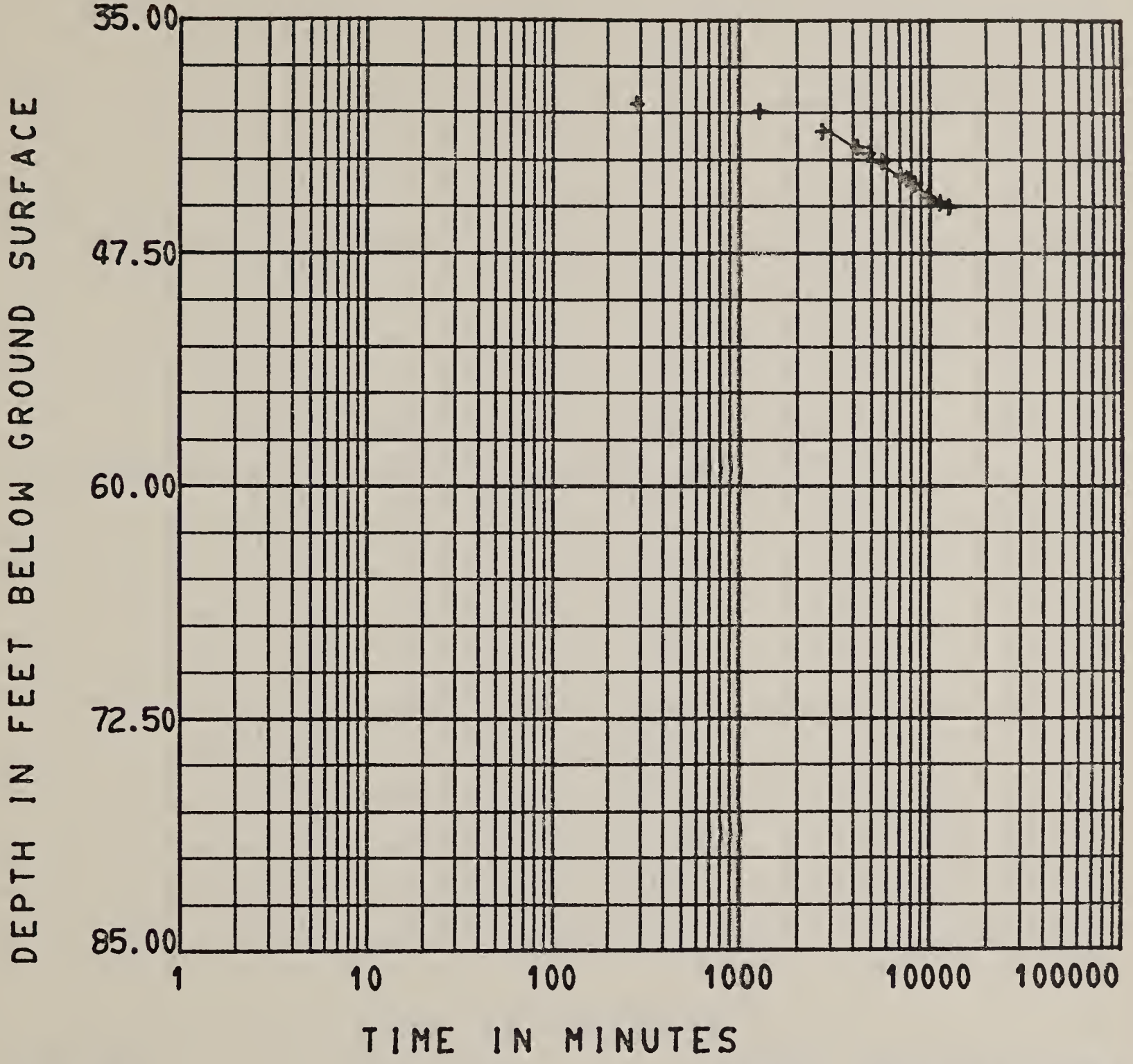
AM-2A GS-19 LOWR RECOVERY



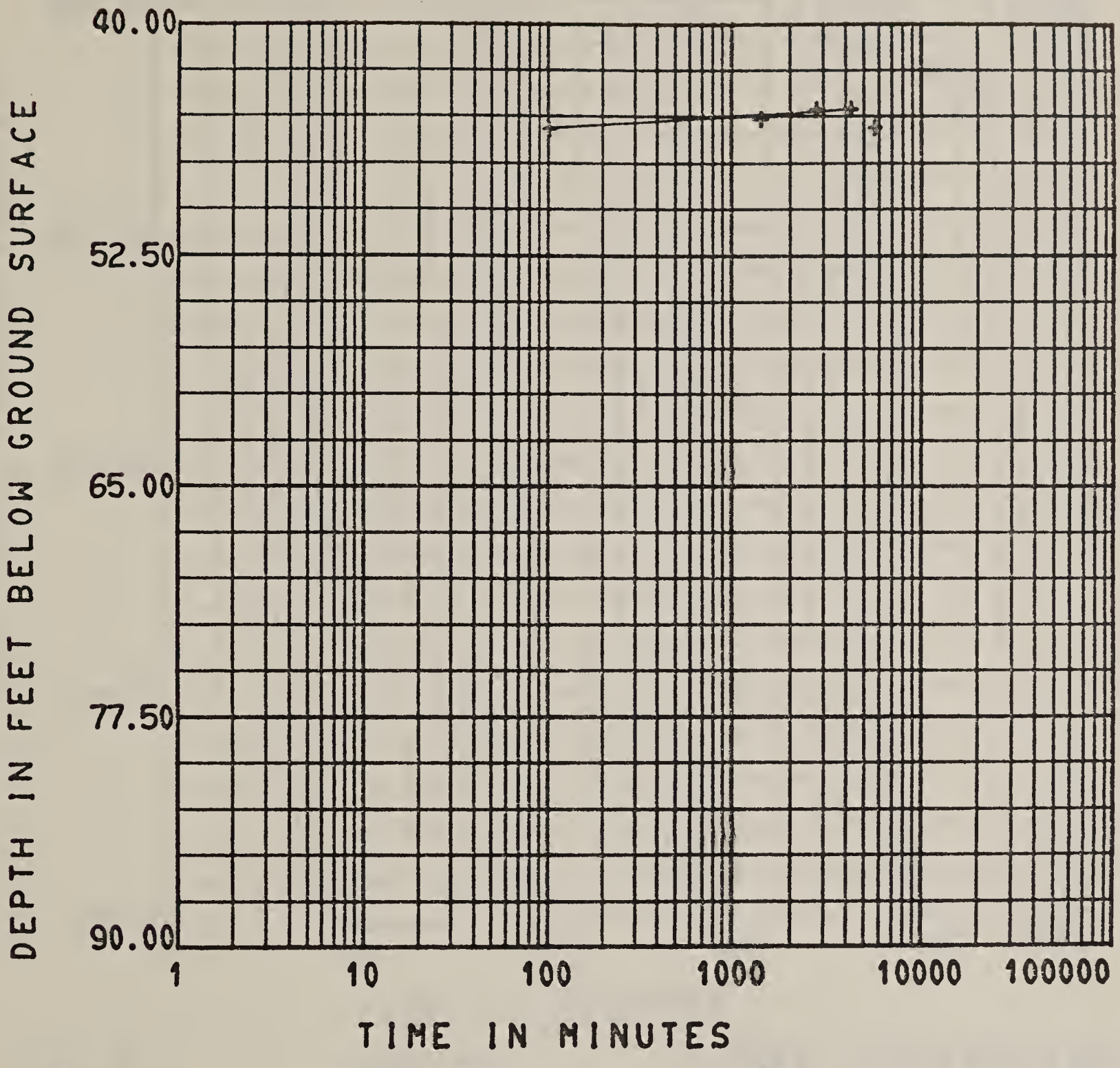
AM-2A GS-19 LOWR DRAWDOWN



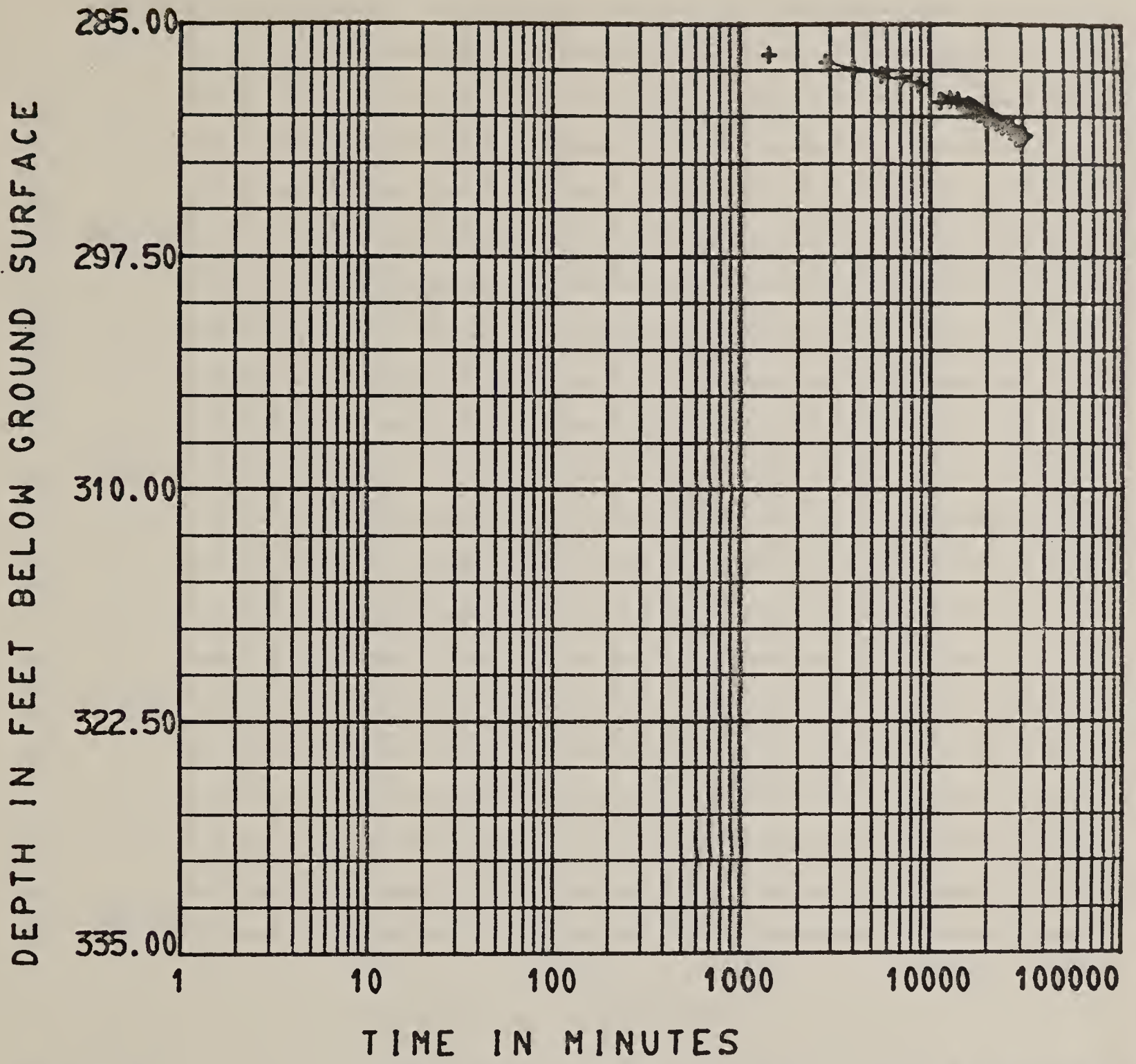
AM-2A GS-19 LOWR RECOVERY



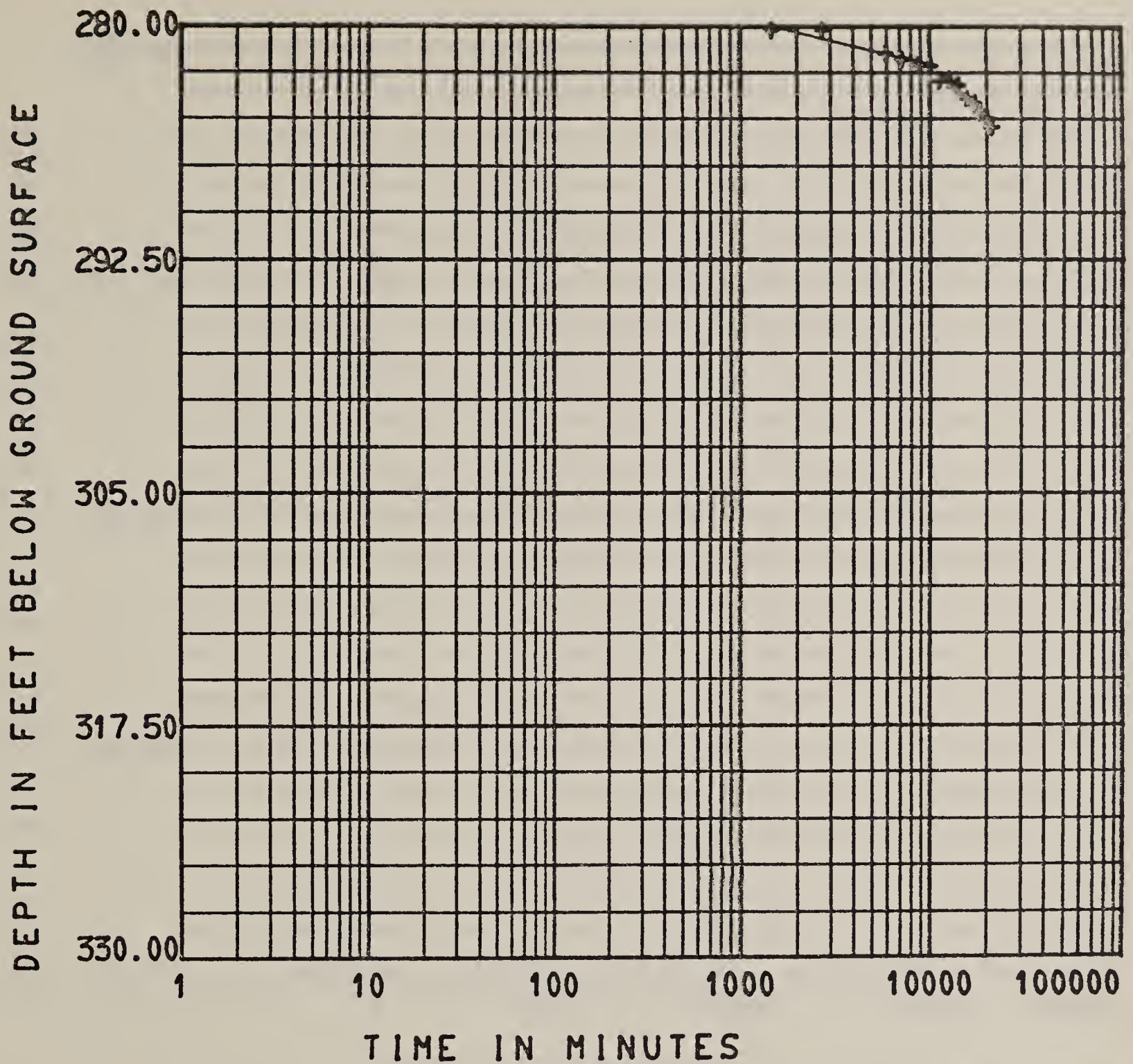
AM-3 GS-12 UPPR DRAWDOWN



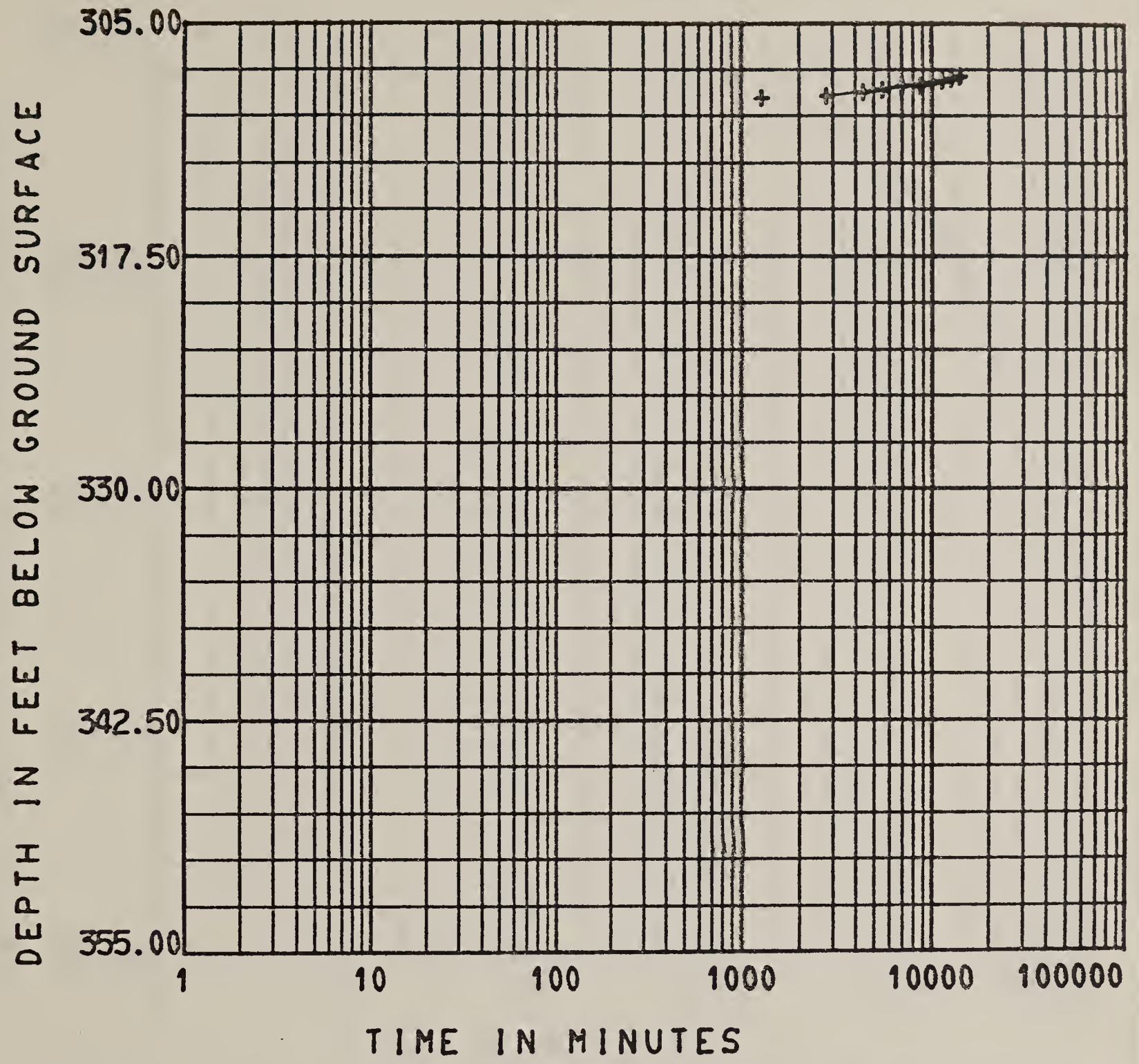
AM-3 GS-12 UPPR RECOVERY



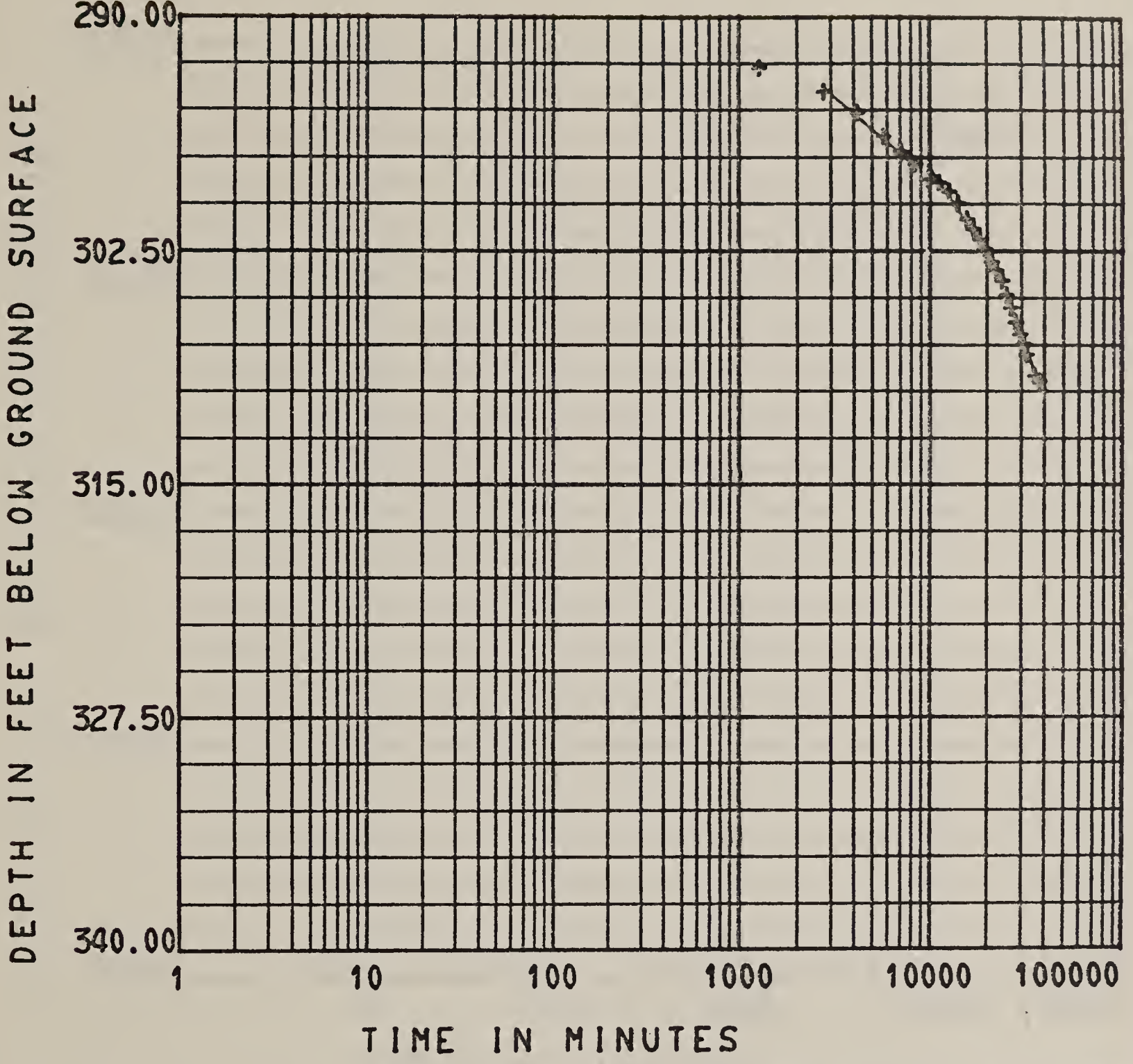
AM-3 GS-16 LOWR DRAWDOWN



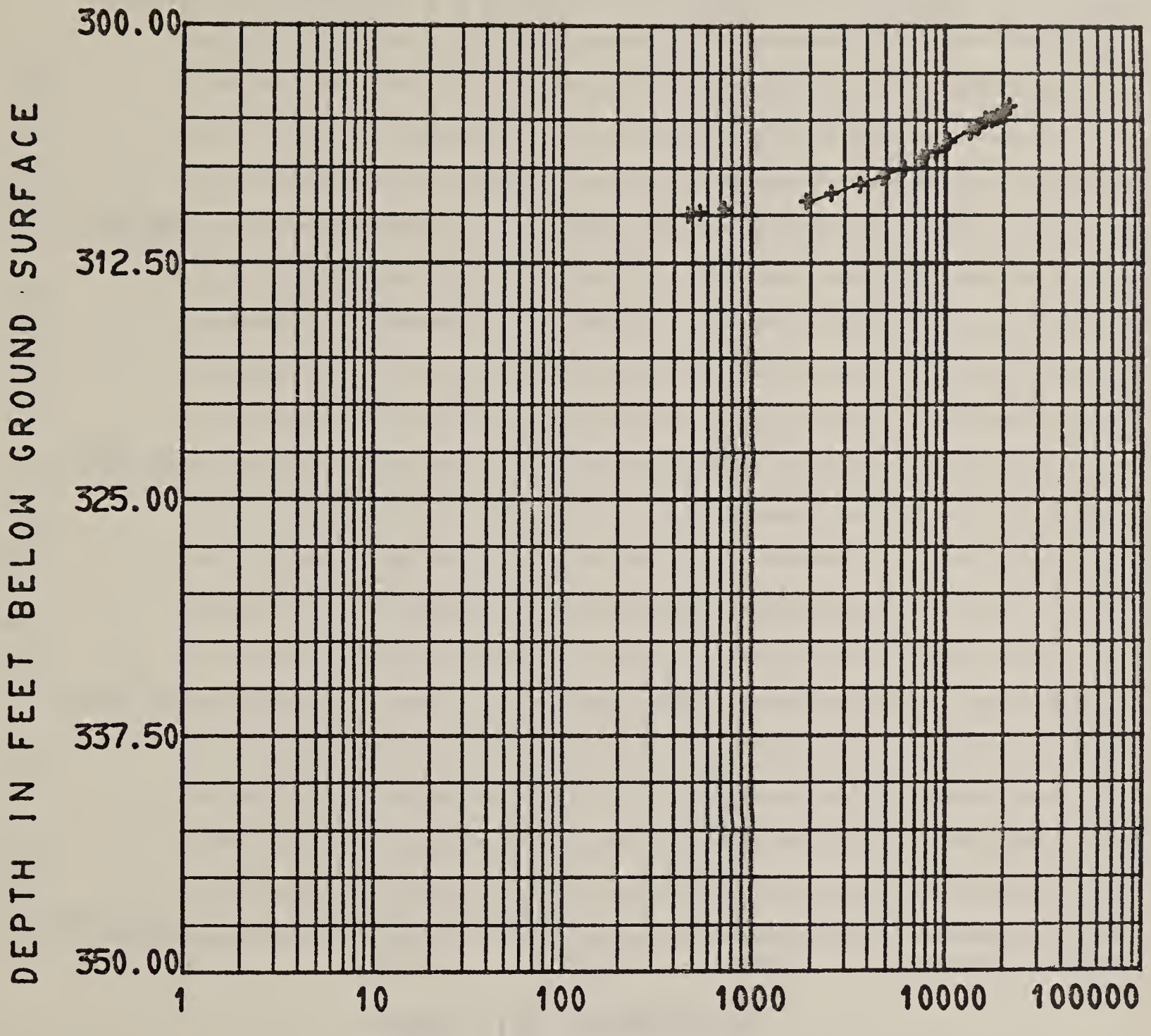
AM-3 GS-17 LOWR DRAWDOWN



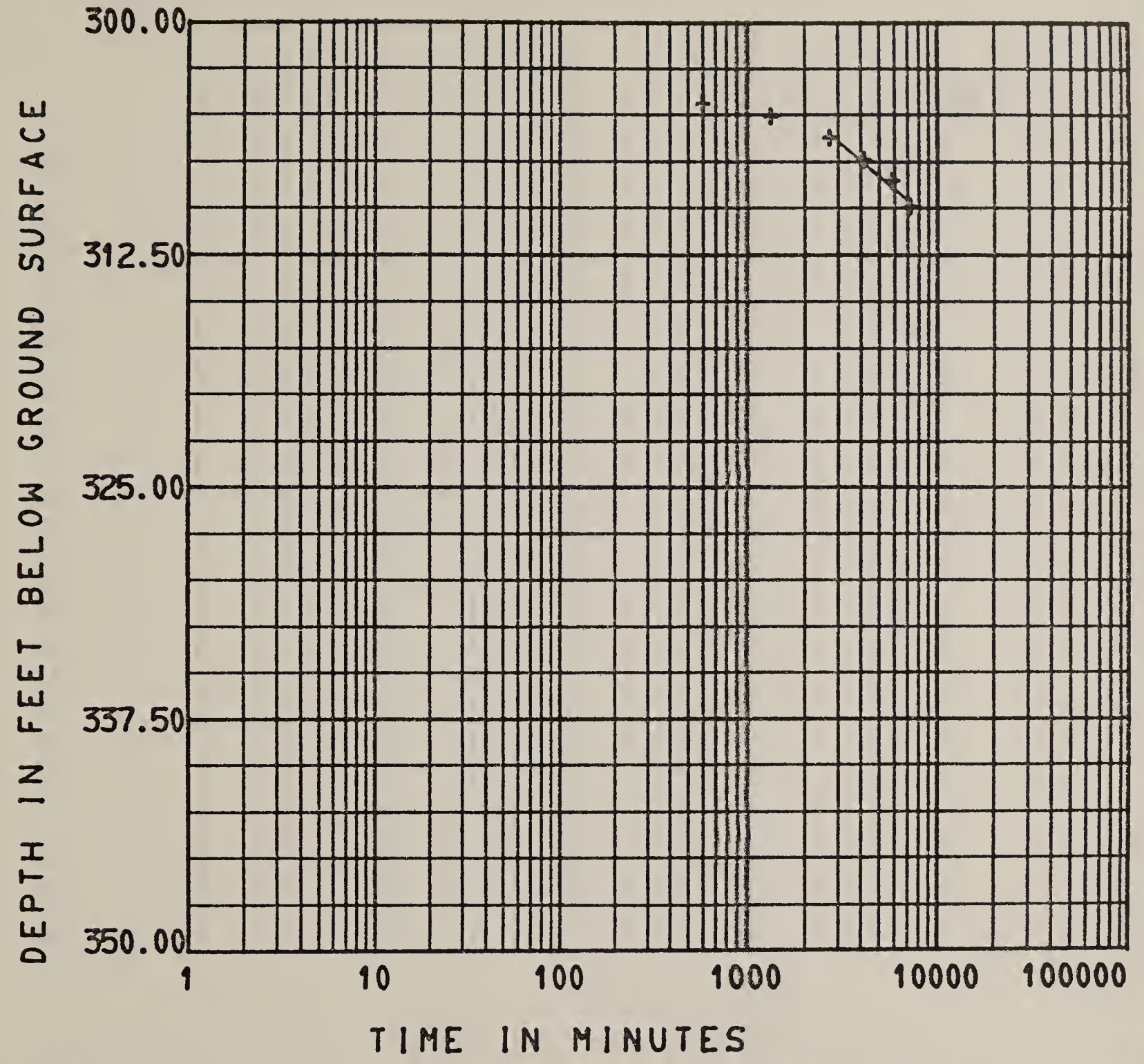
AM-3 GS-18 LOWR RECOVERY



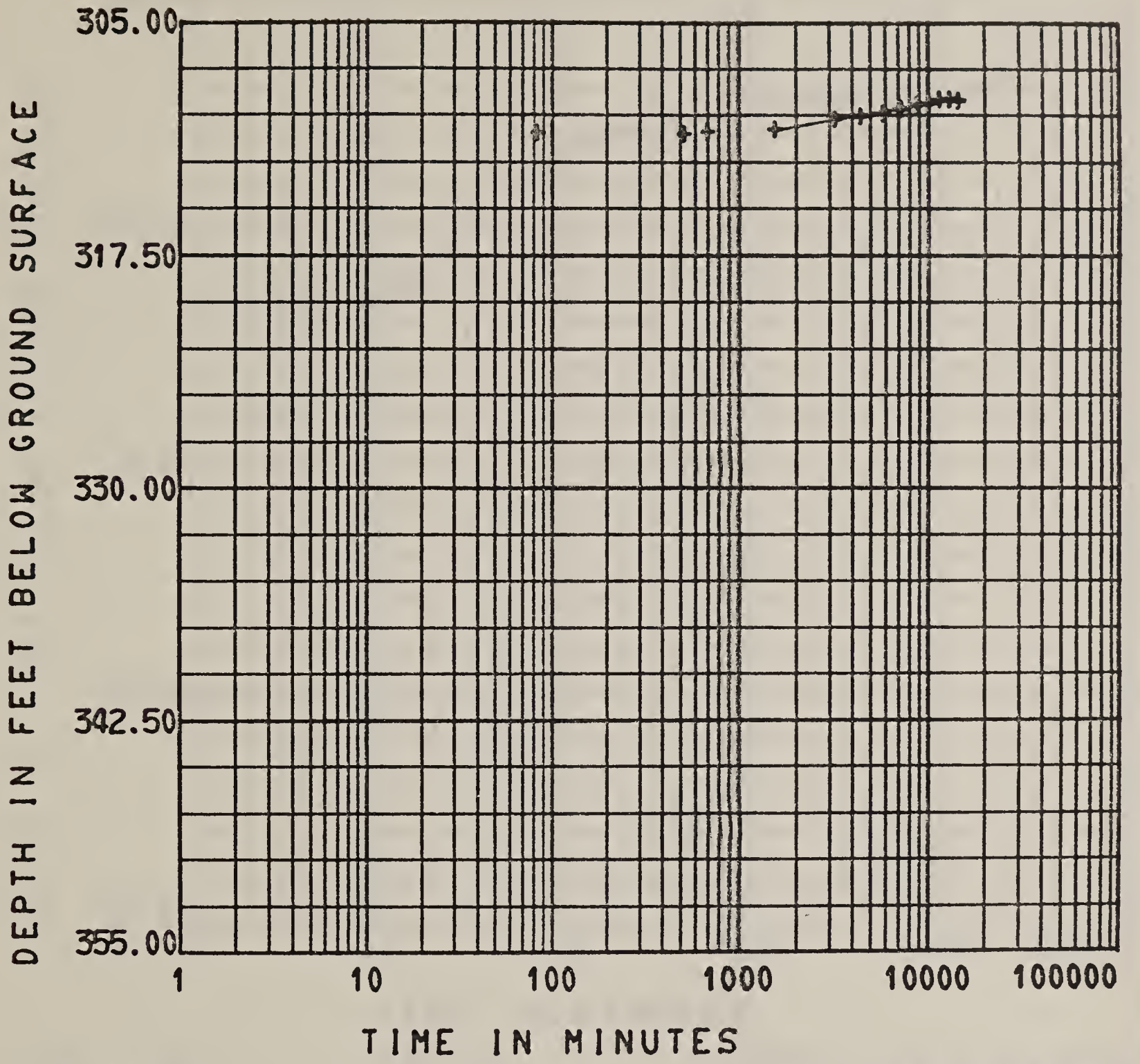
AM-3 GS-19 LOWR DRAWDOWN



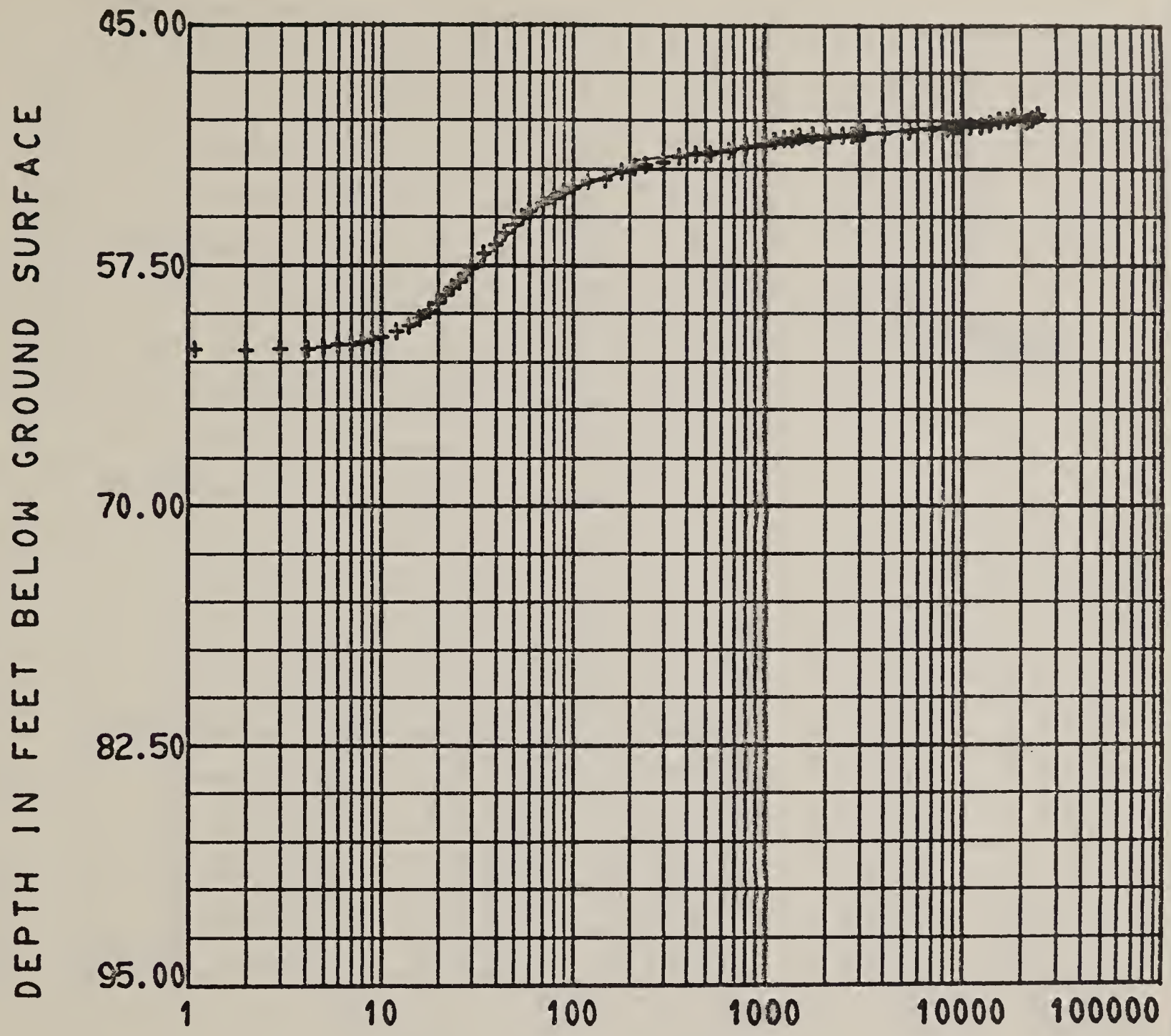
AM-3 GS-19 LOWR RECOVERY



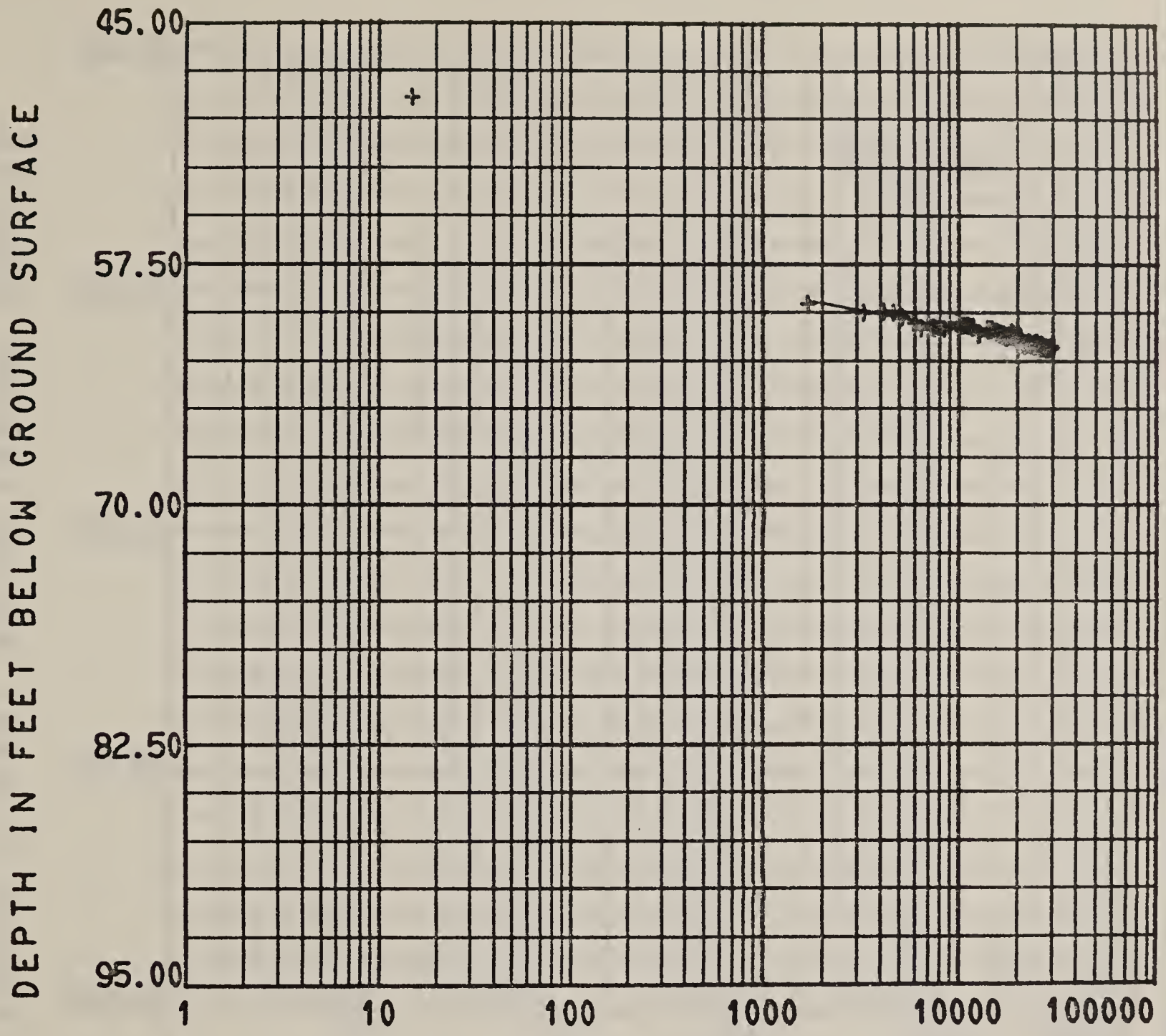
AM-3 GS-19 LOWR DRAWDOWN



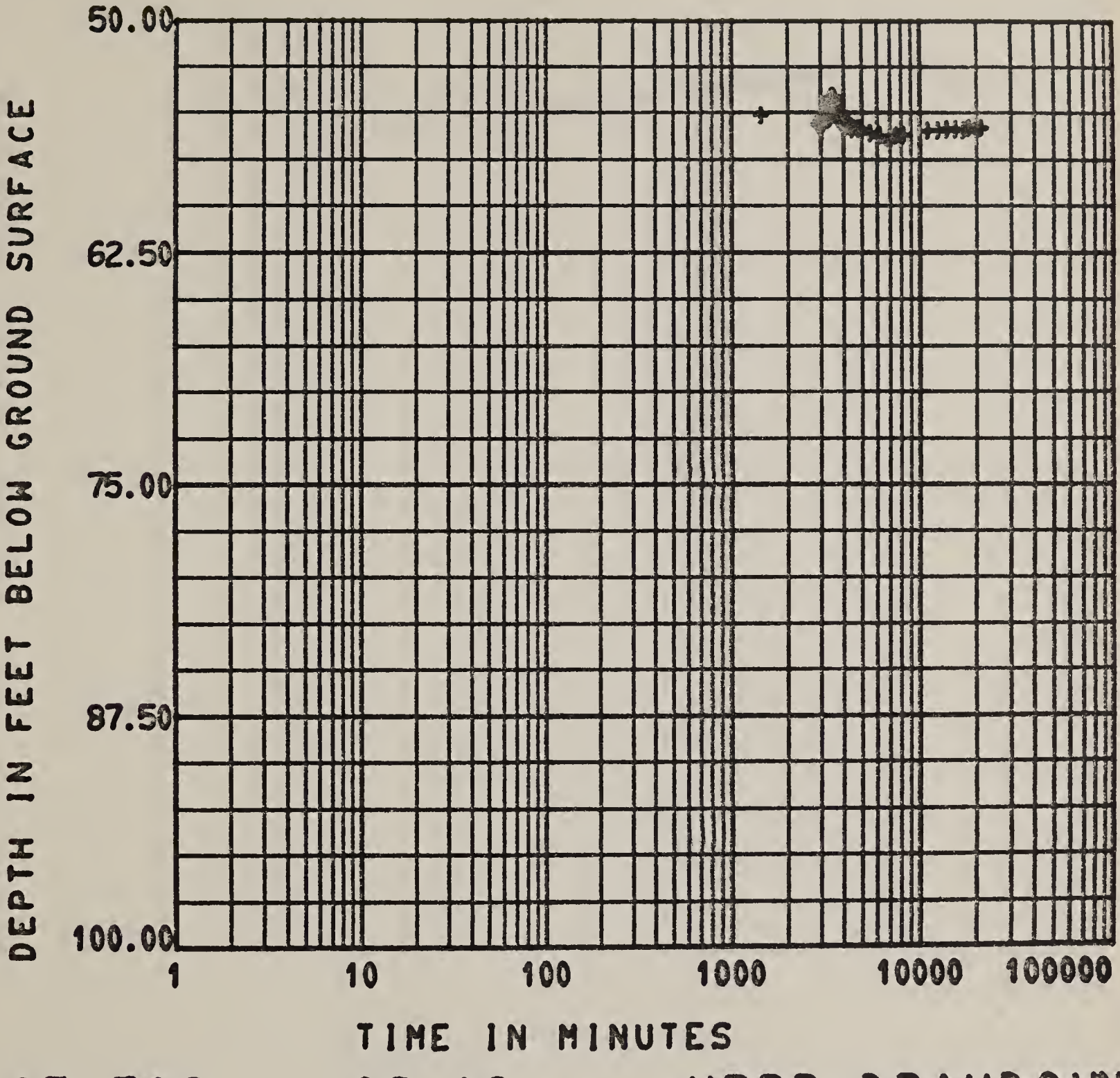
AM-3 GS-19 LOWR RECOVERY



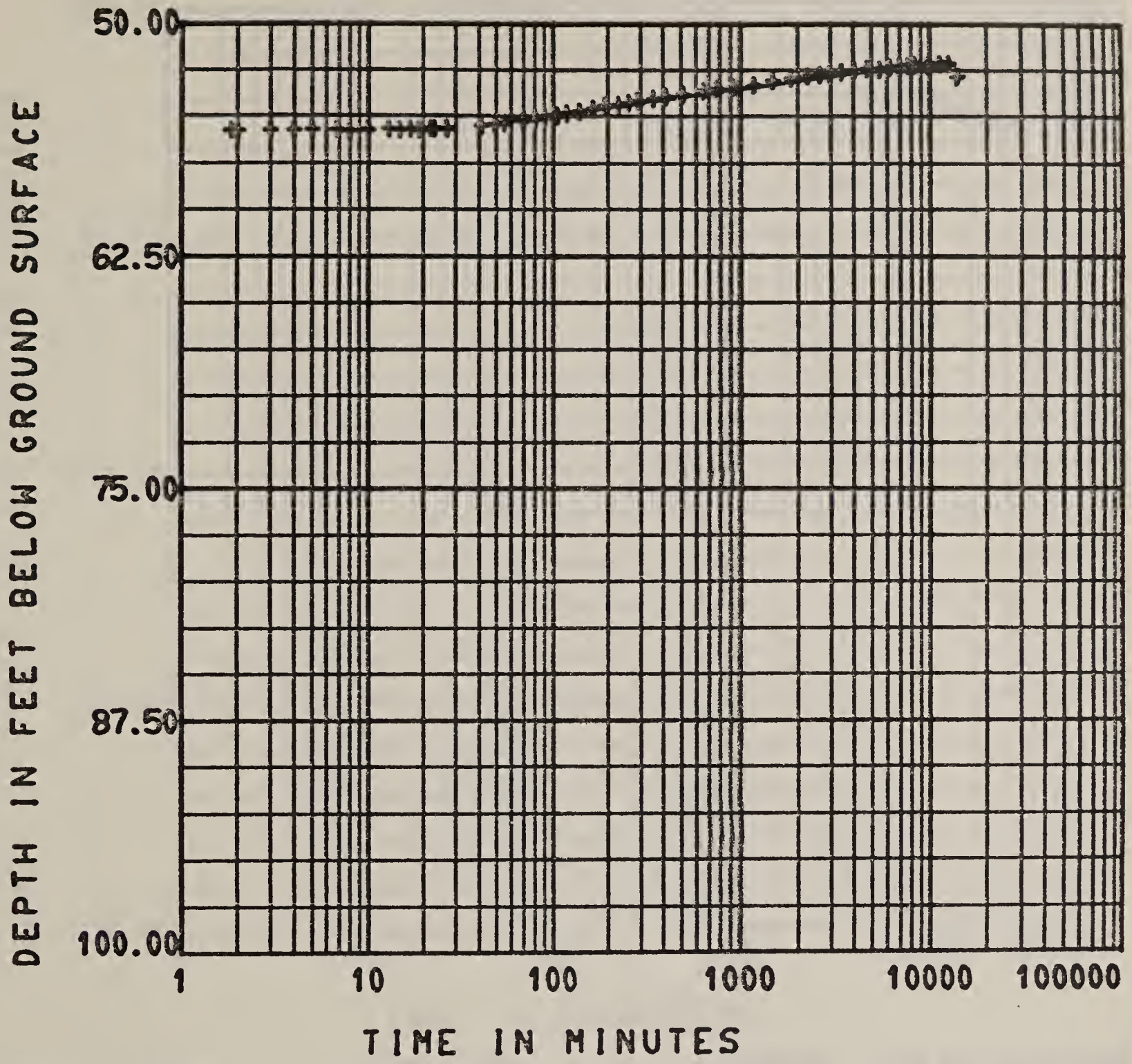
CE 702 TO-3 UPPR RECOVERY



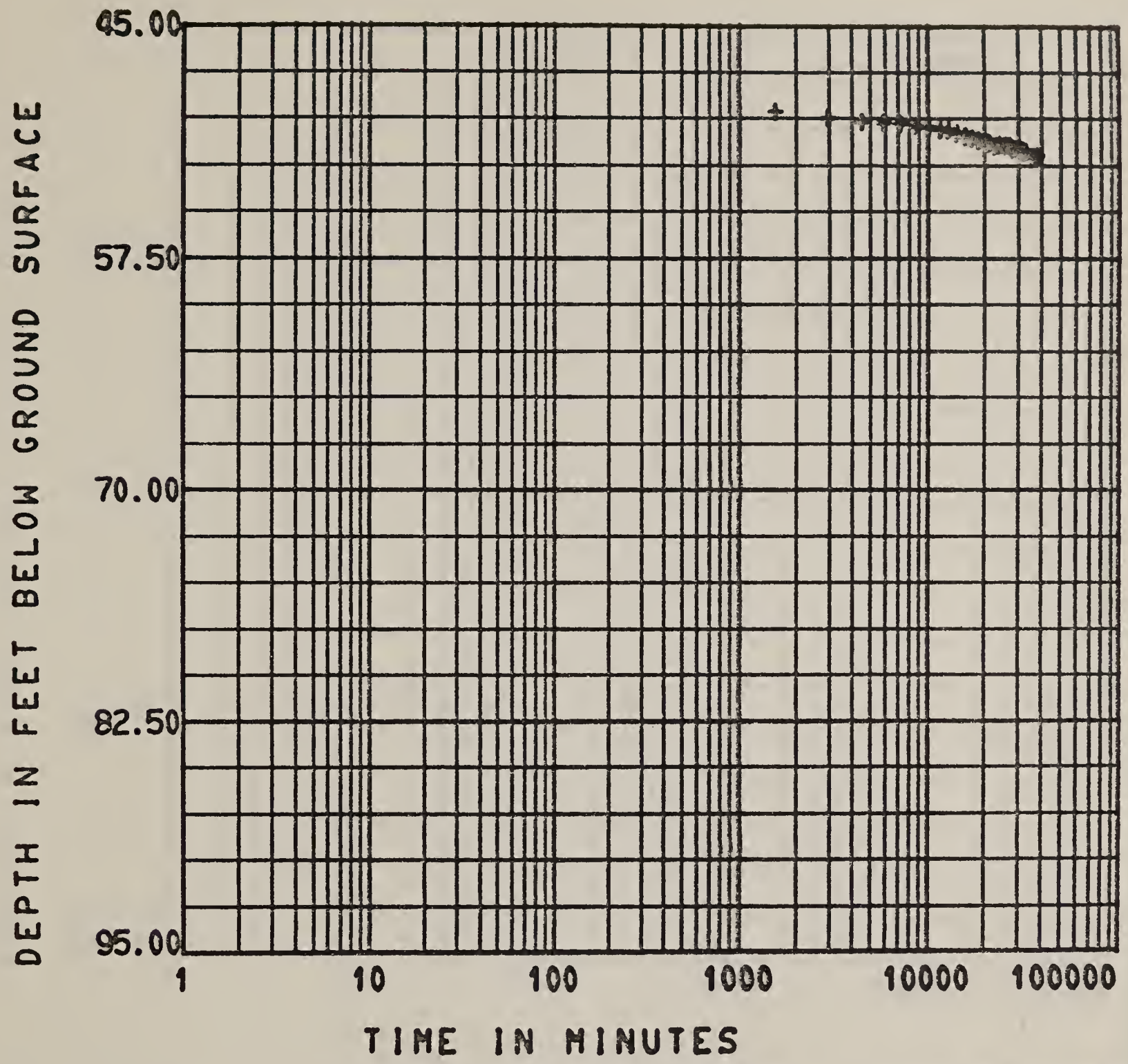
CE 702 TO-3 UPPR DRAWDOWN



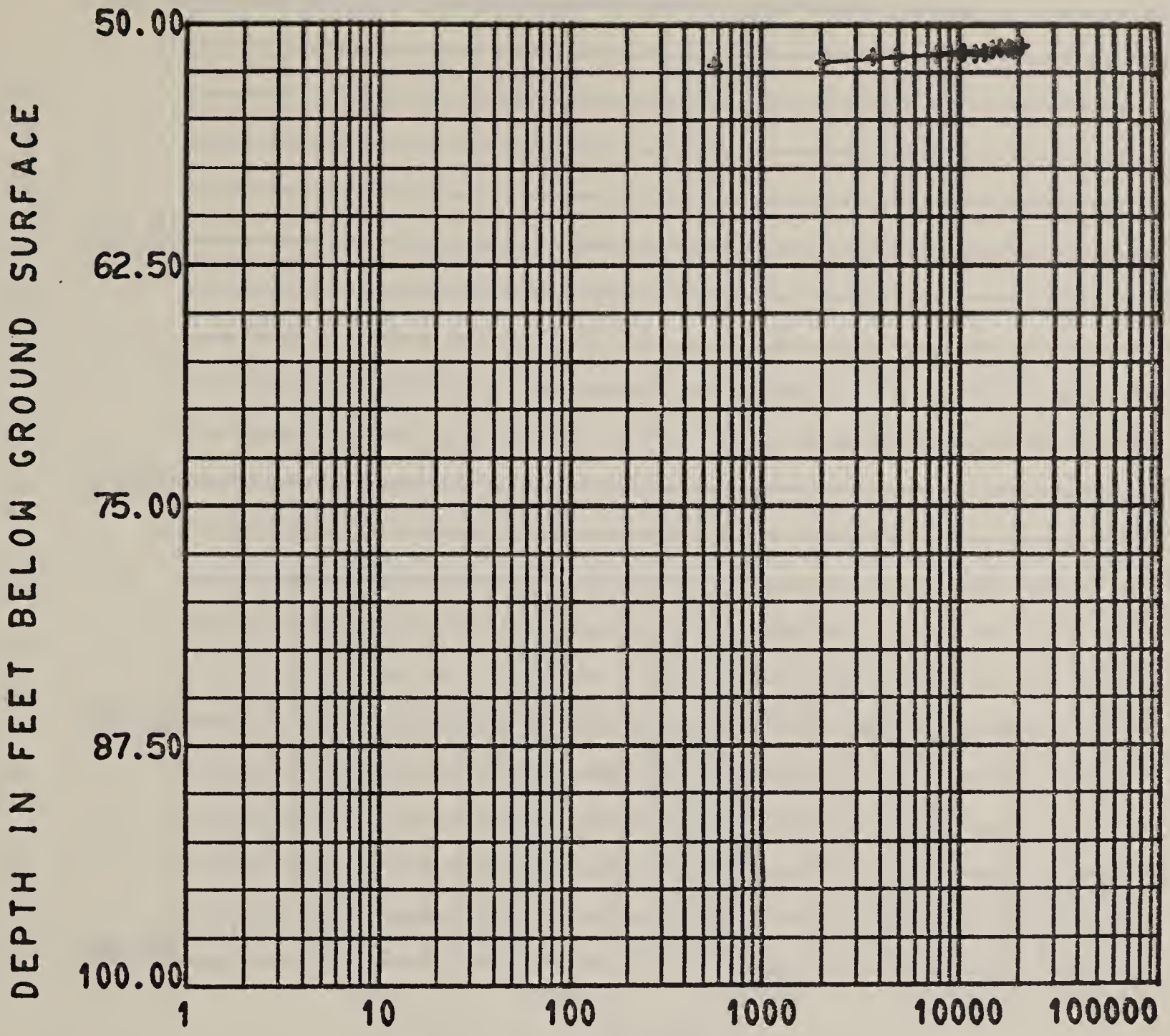
CE 702 GS-18 UPPR DRAWDOWN



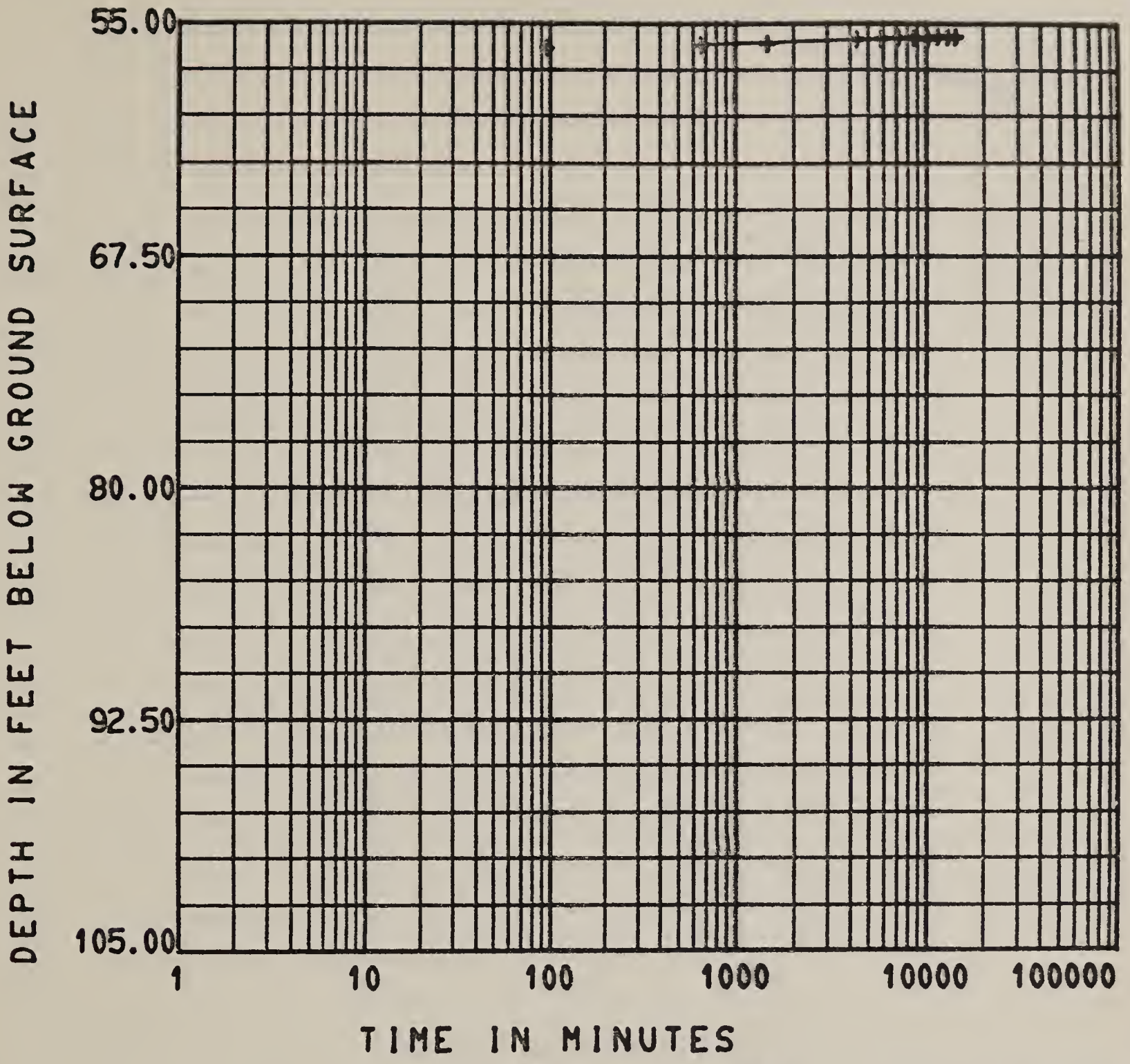
CE 702 GS-18 UPPR RECOVERY



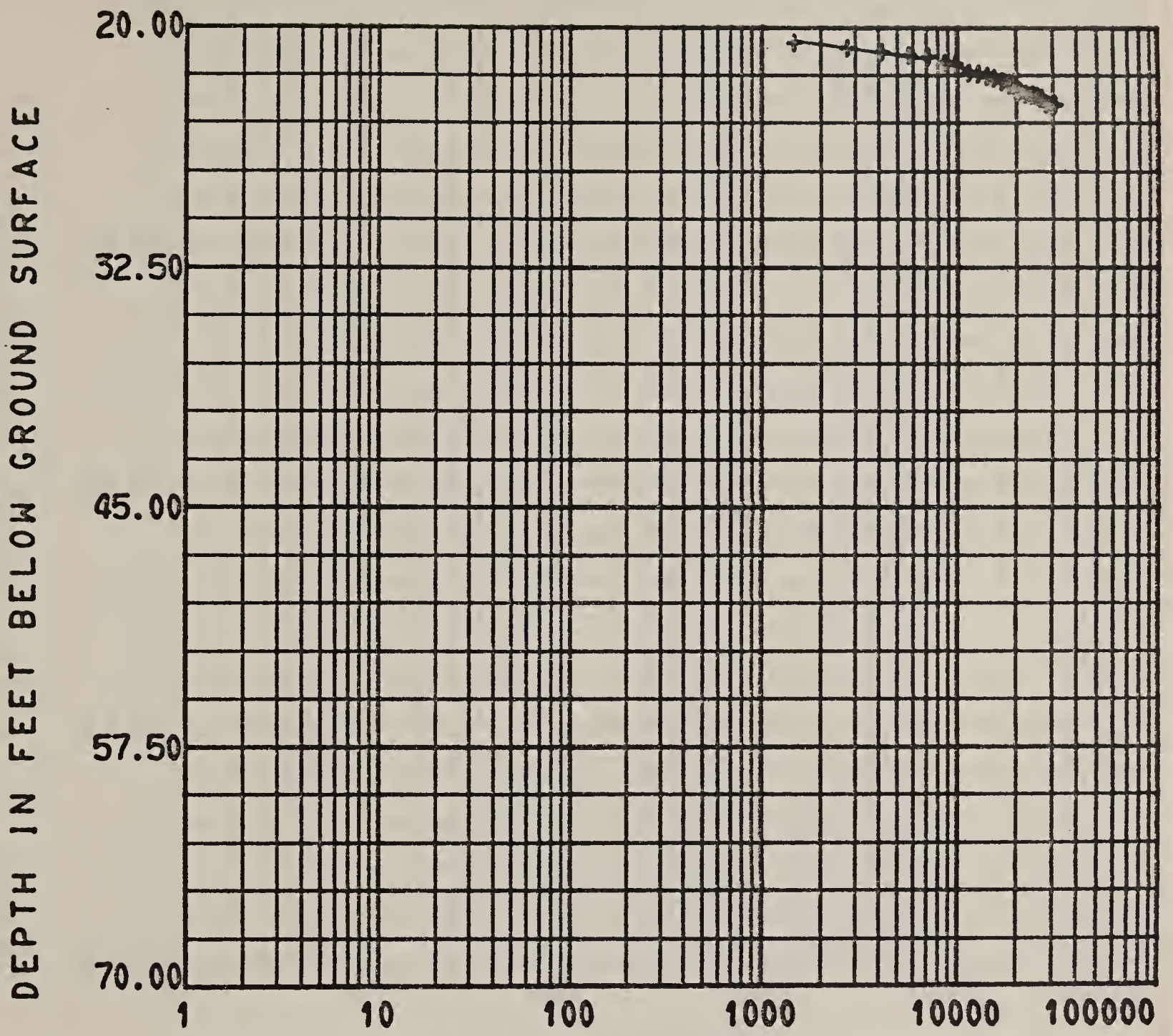
CE 702 GS-19 UPPR DRAWDOWN



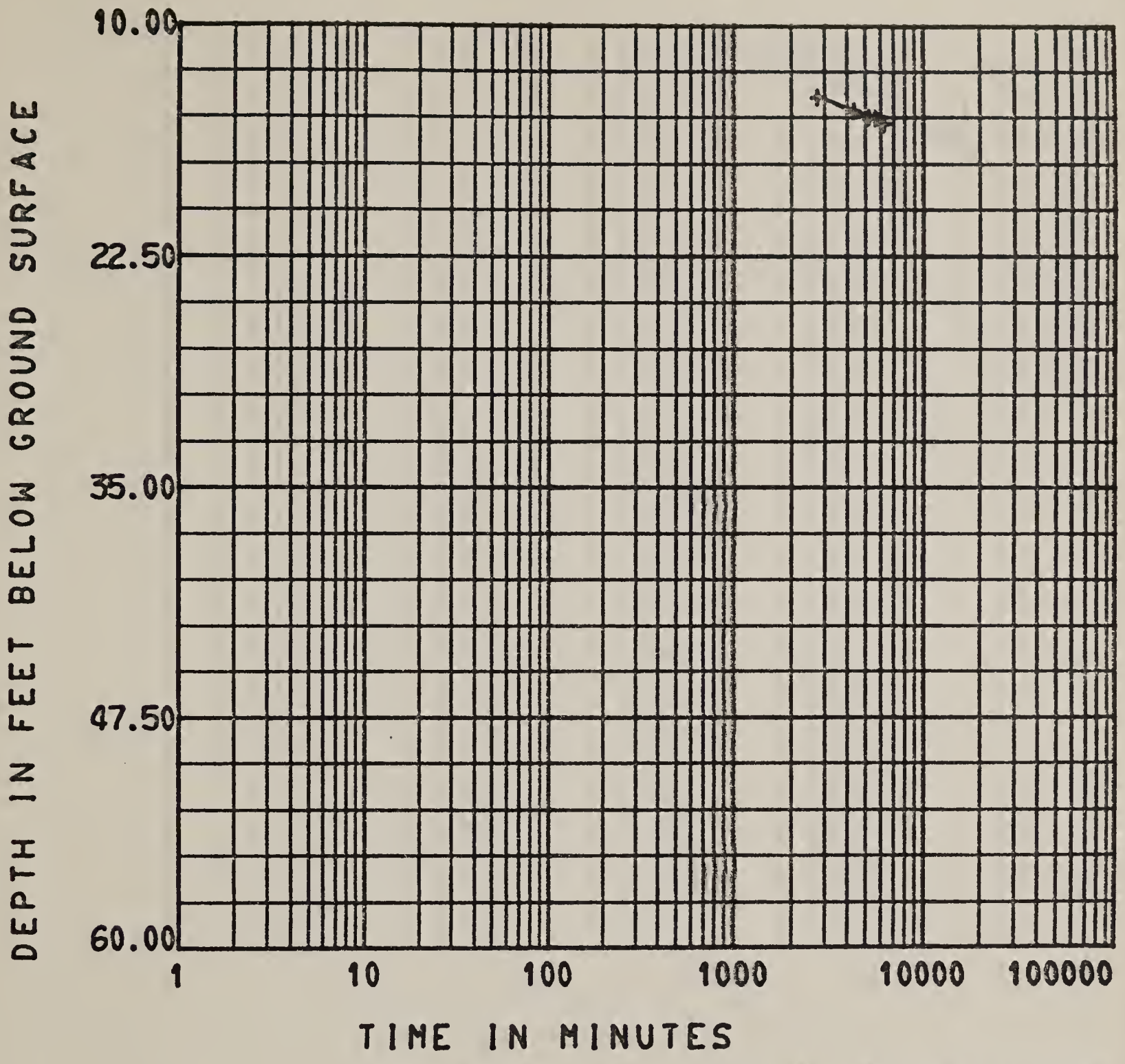
CE 702 GS-19 UPPR RECOVERY



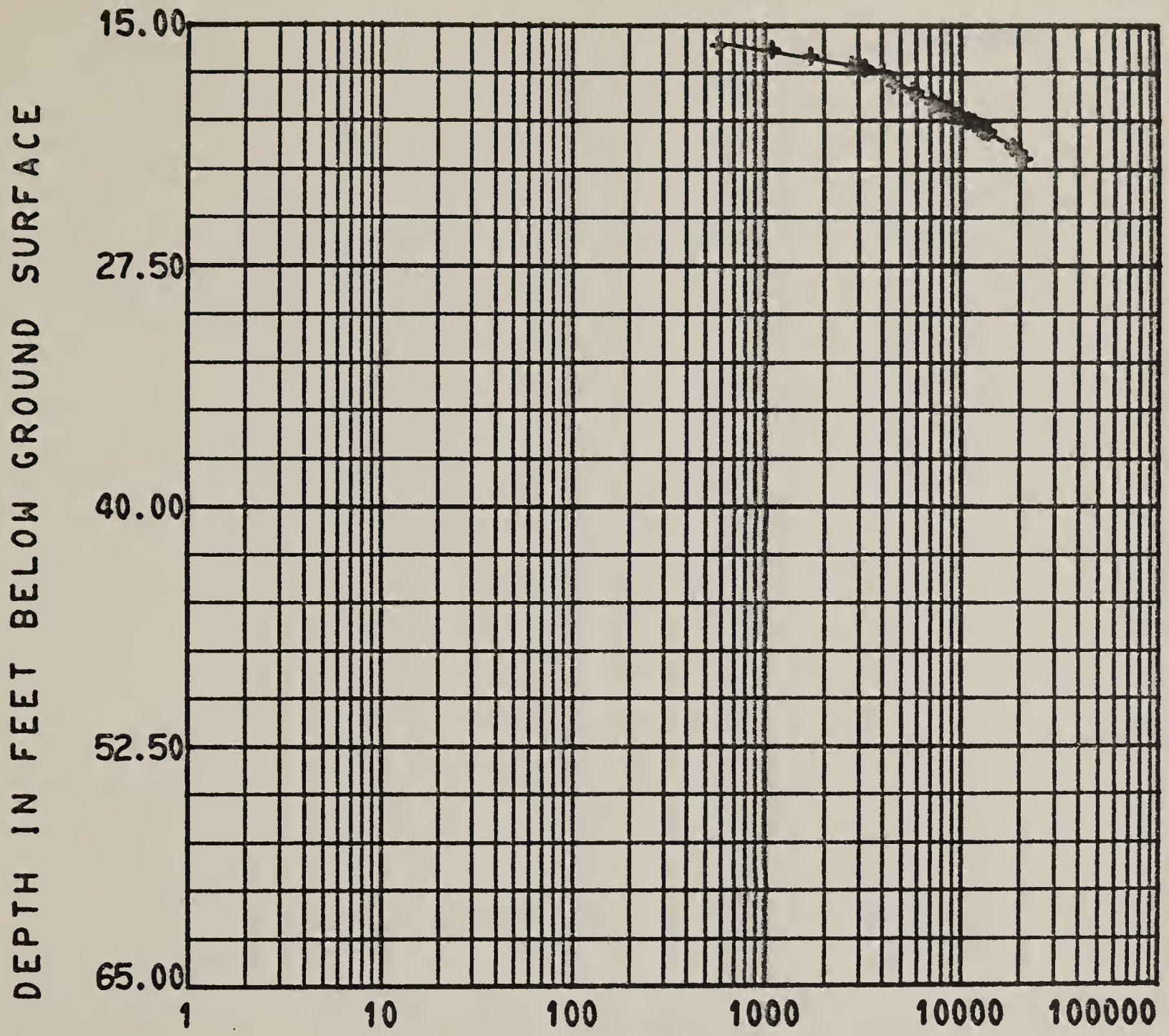
CE 702 GS-19 UPPR RECOVERY



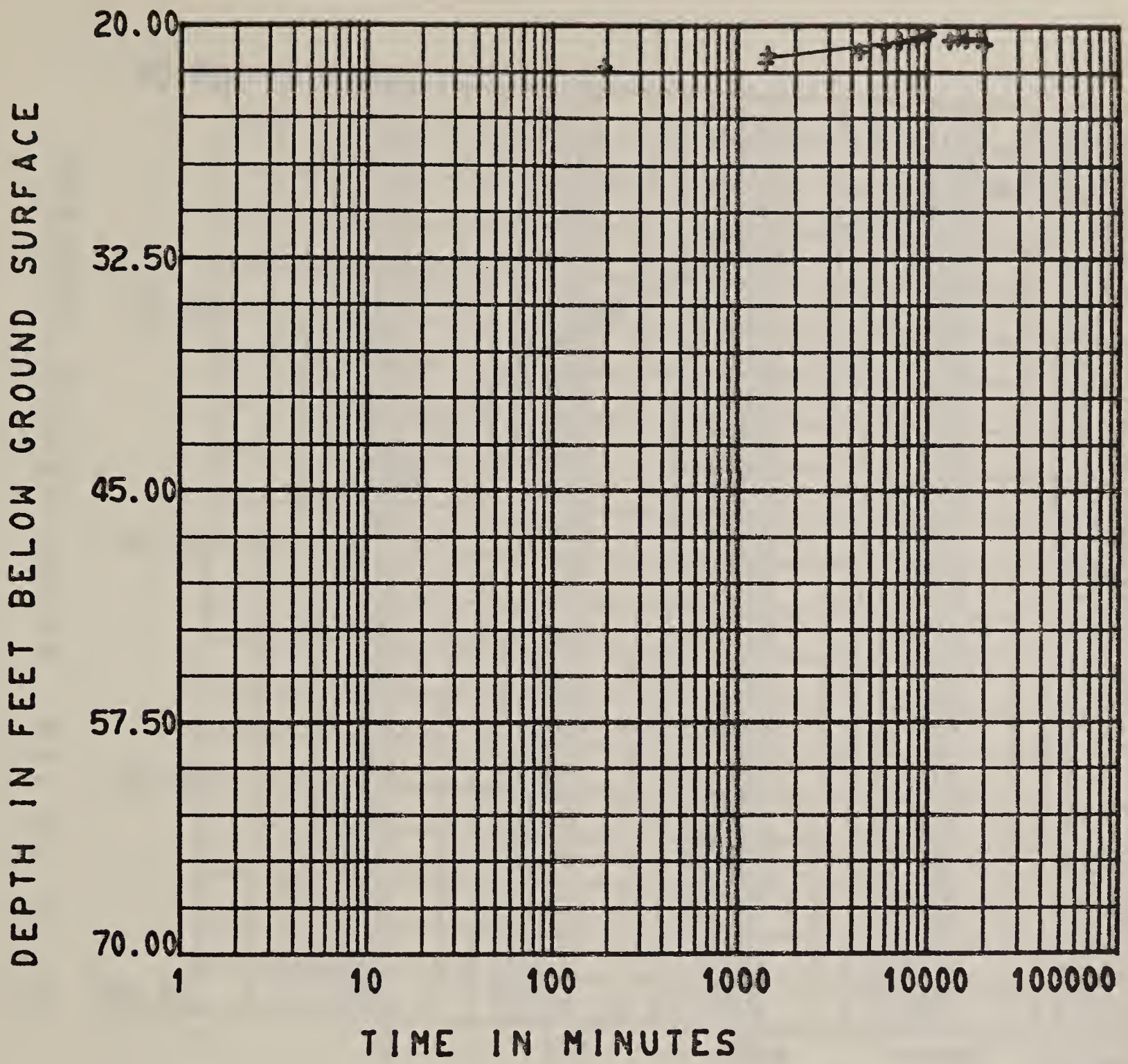
CE 702 GS-16 LOWR DRAWDOWN



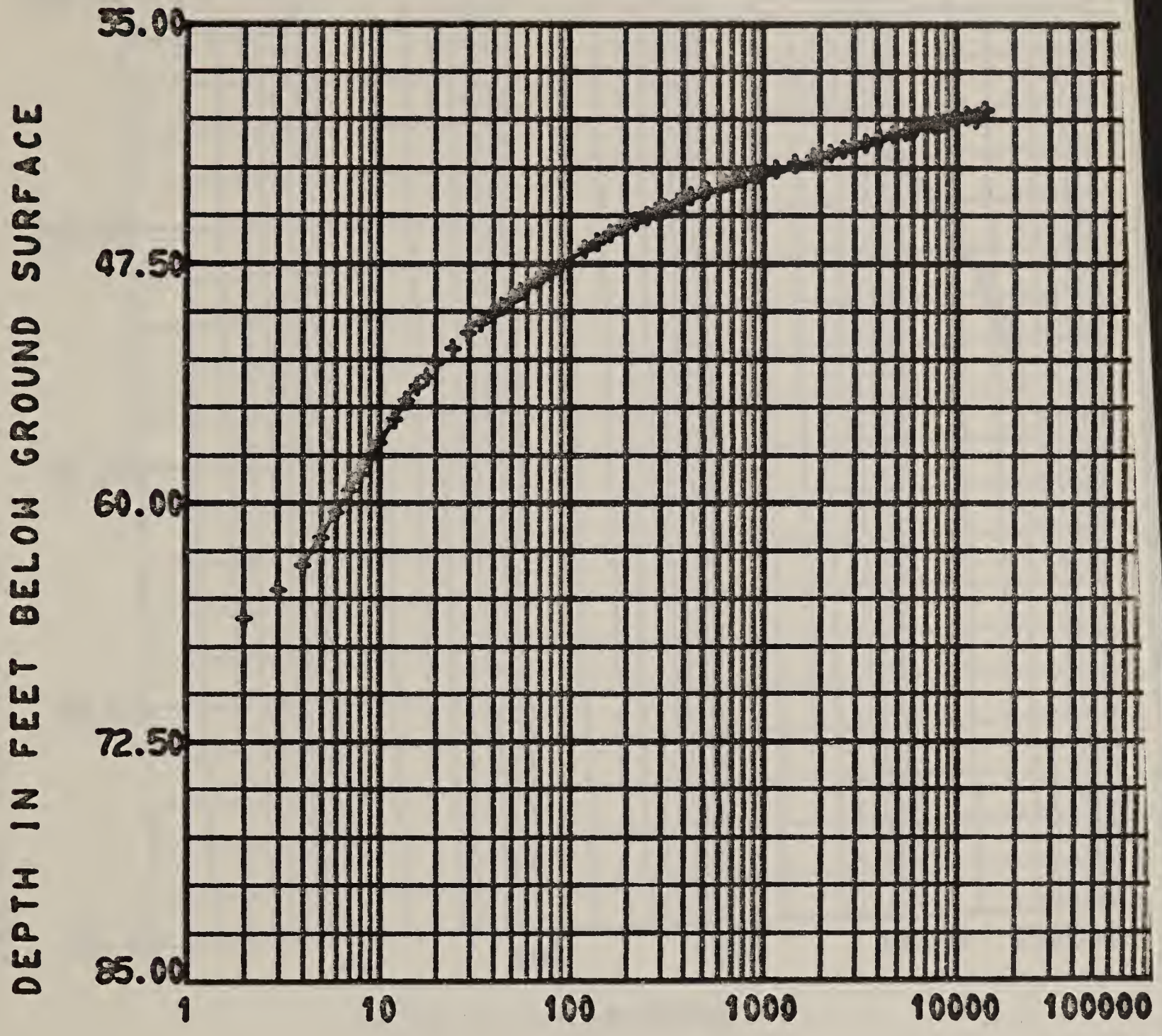
CE 702 GS-17 LOWR DRAWDOWN



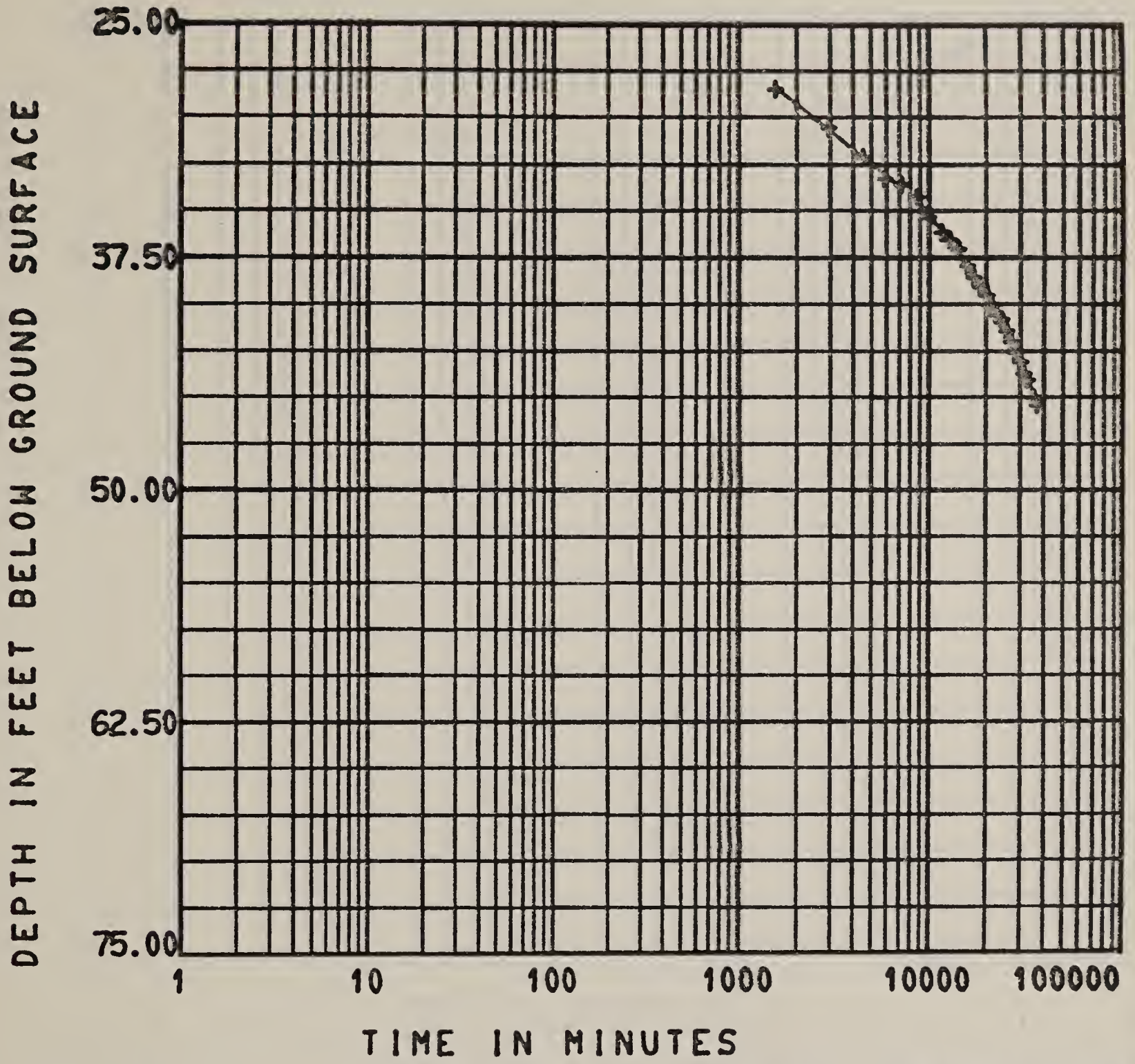
CE 702 GS-17 LOWR DRAWDOWN



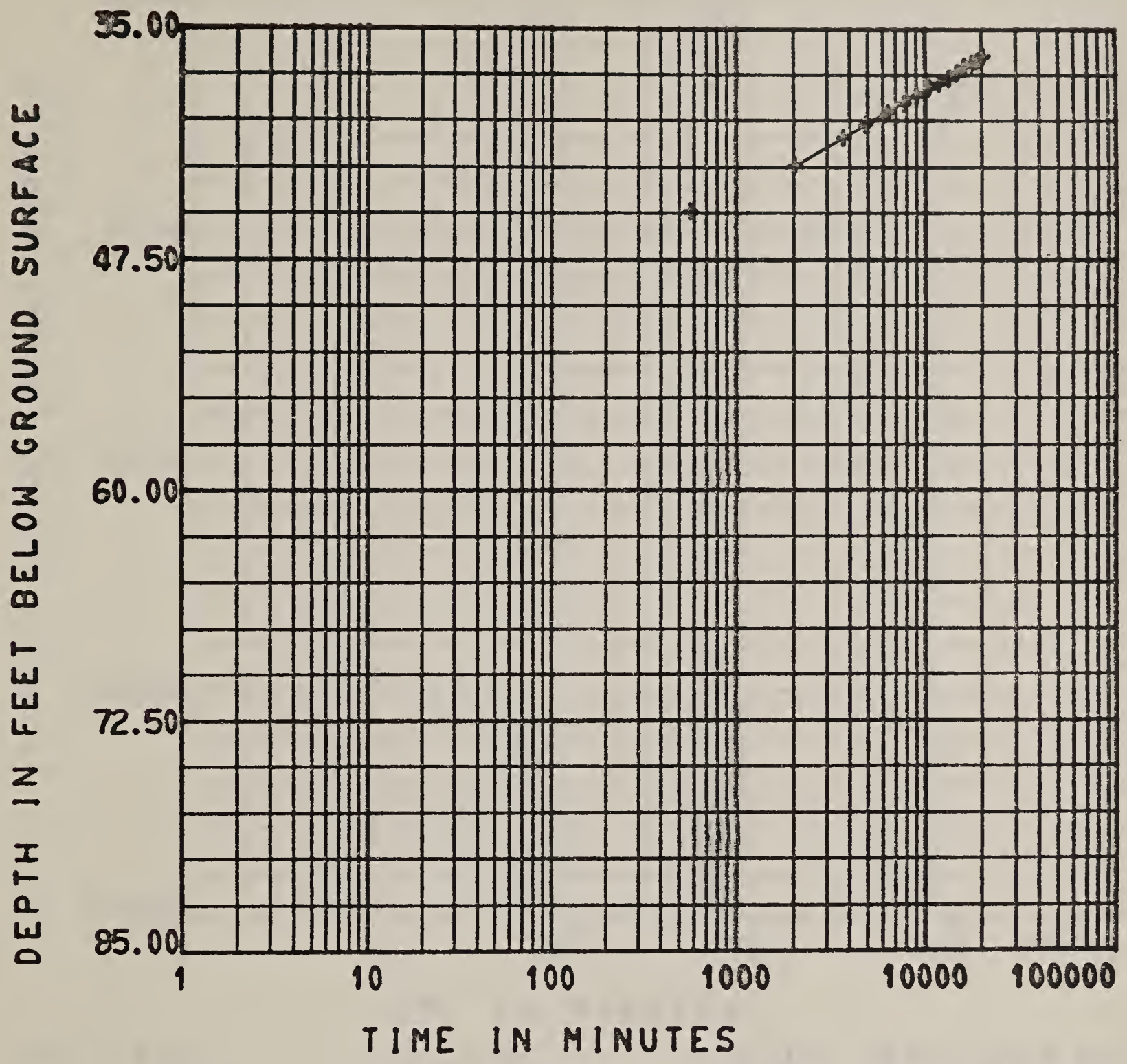
CE 702 GS-17 LOWR RECOVERY



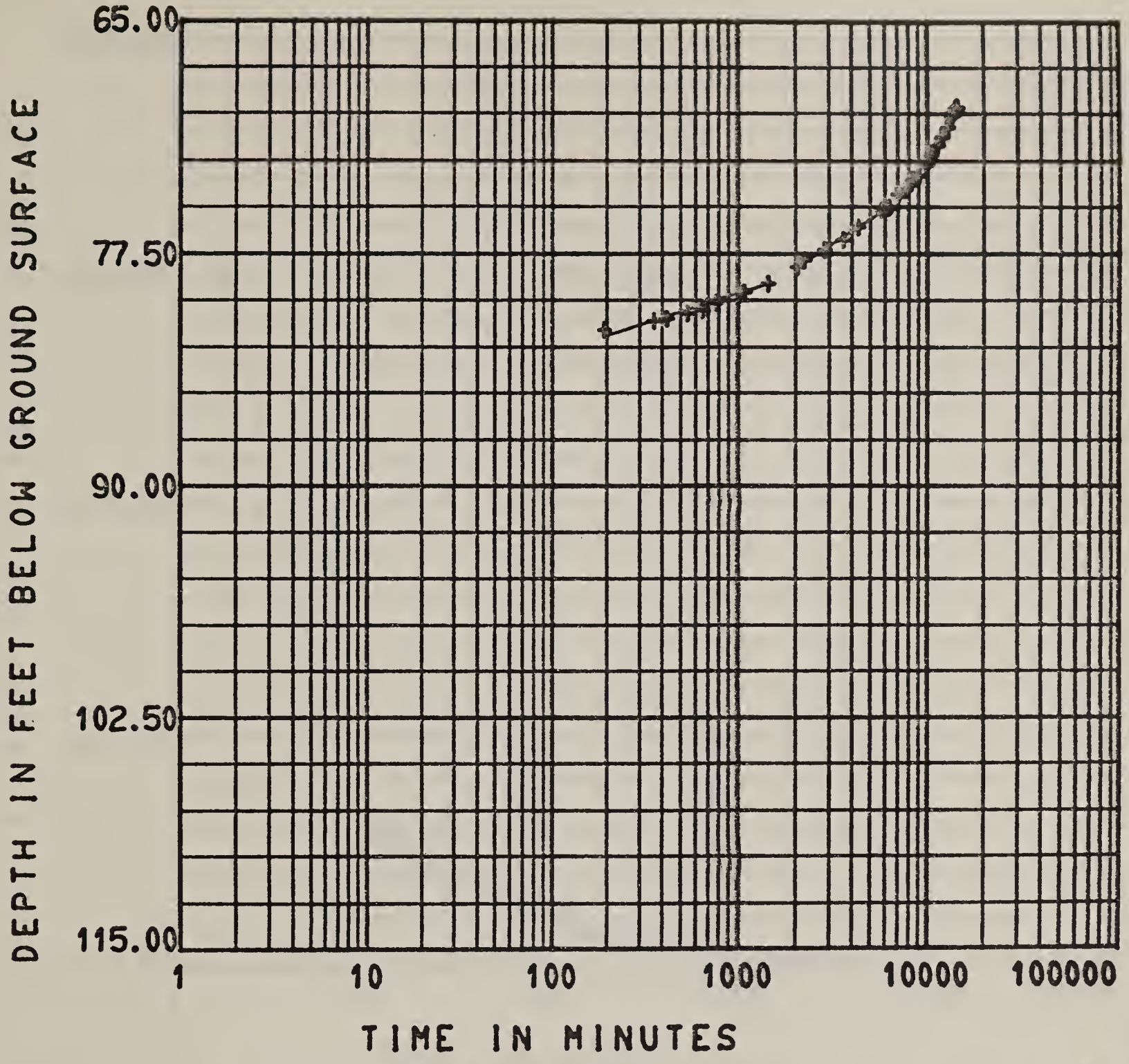
CE 702 GS-18 LOWR RECOVERY



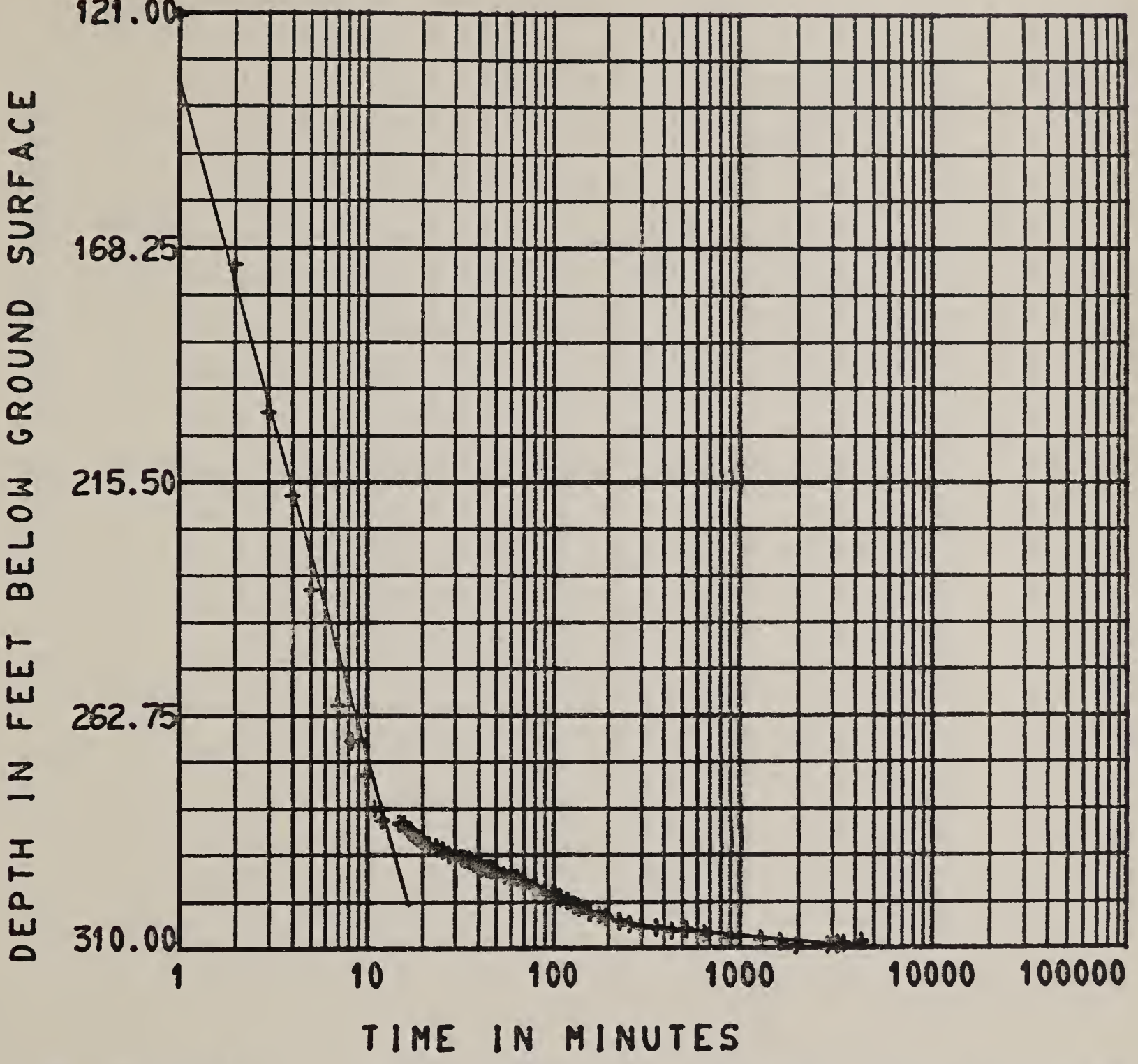
CE 702 GS-19 LOWR DRAWDOWN



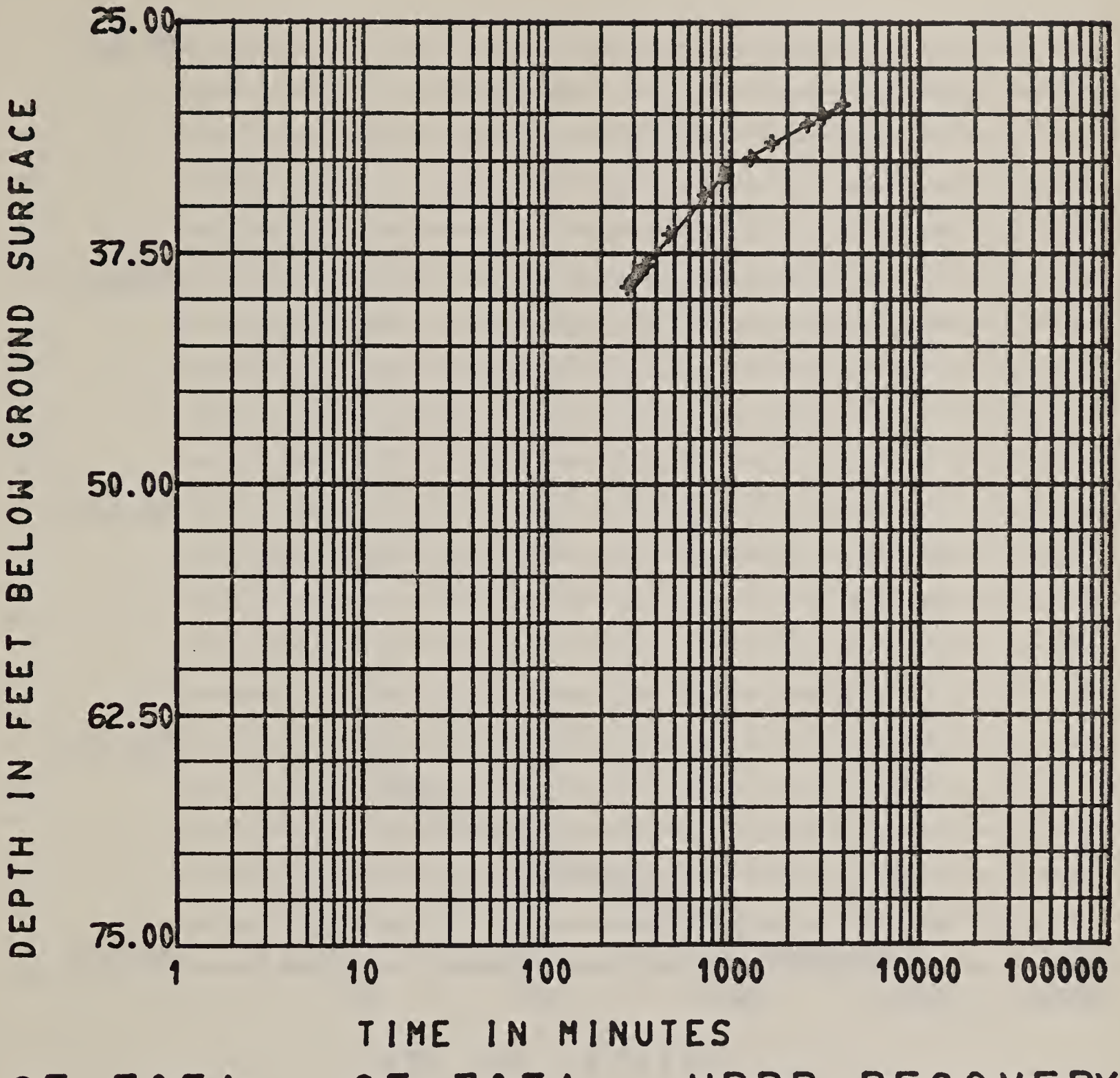
CE 702 GS-19 LOWR RECOVERY



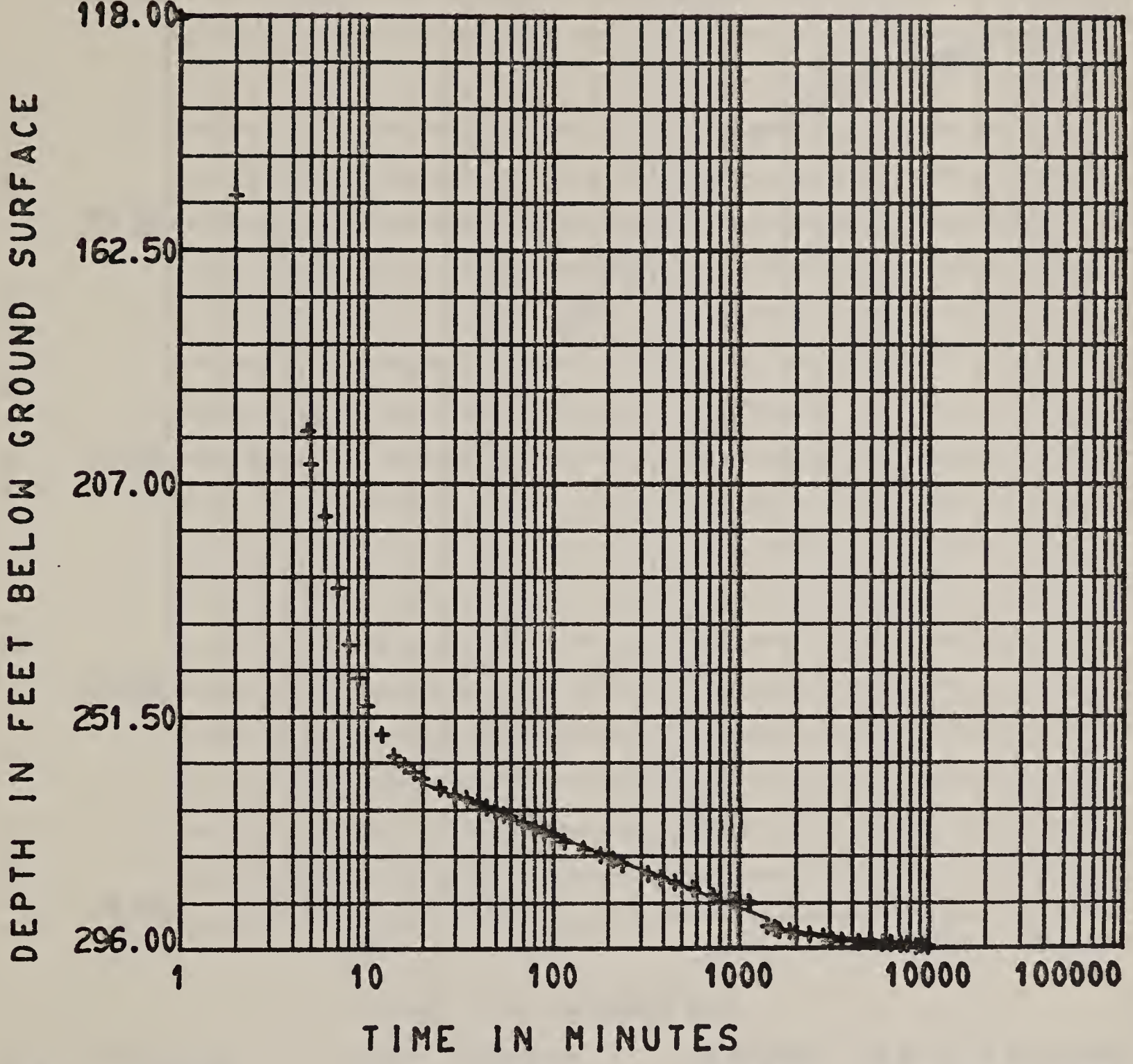
CE 702 GS-19 LOWR RECOVERY



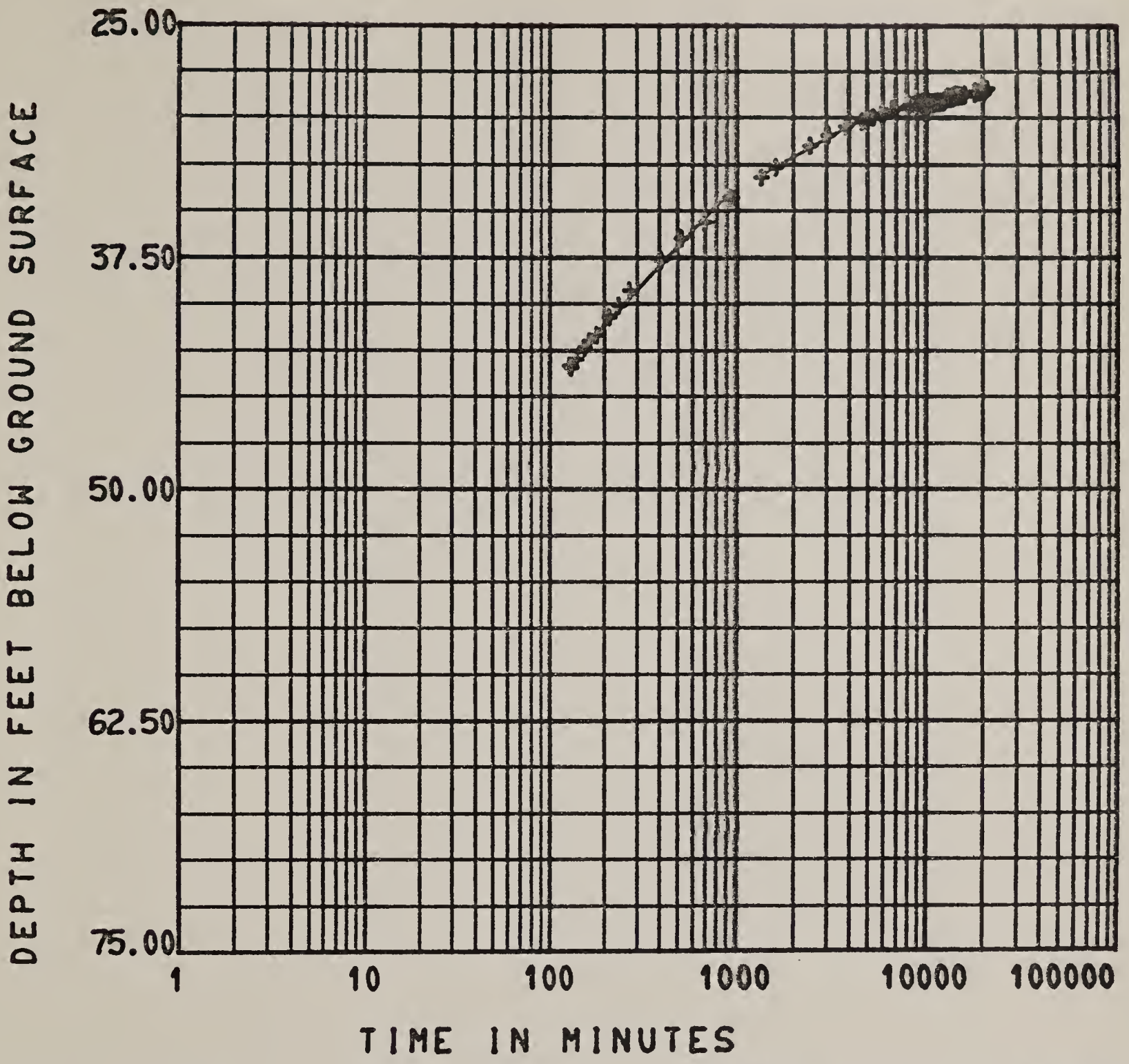
CE 705A CE 705A UPPR DRAWDOWN



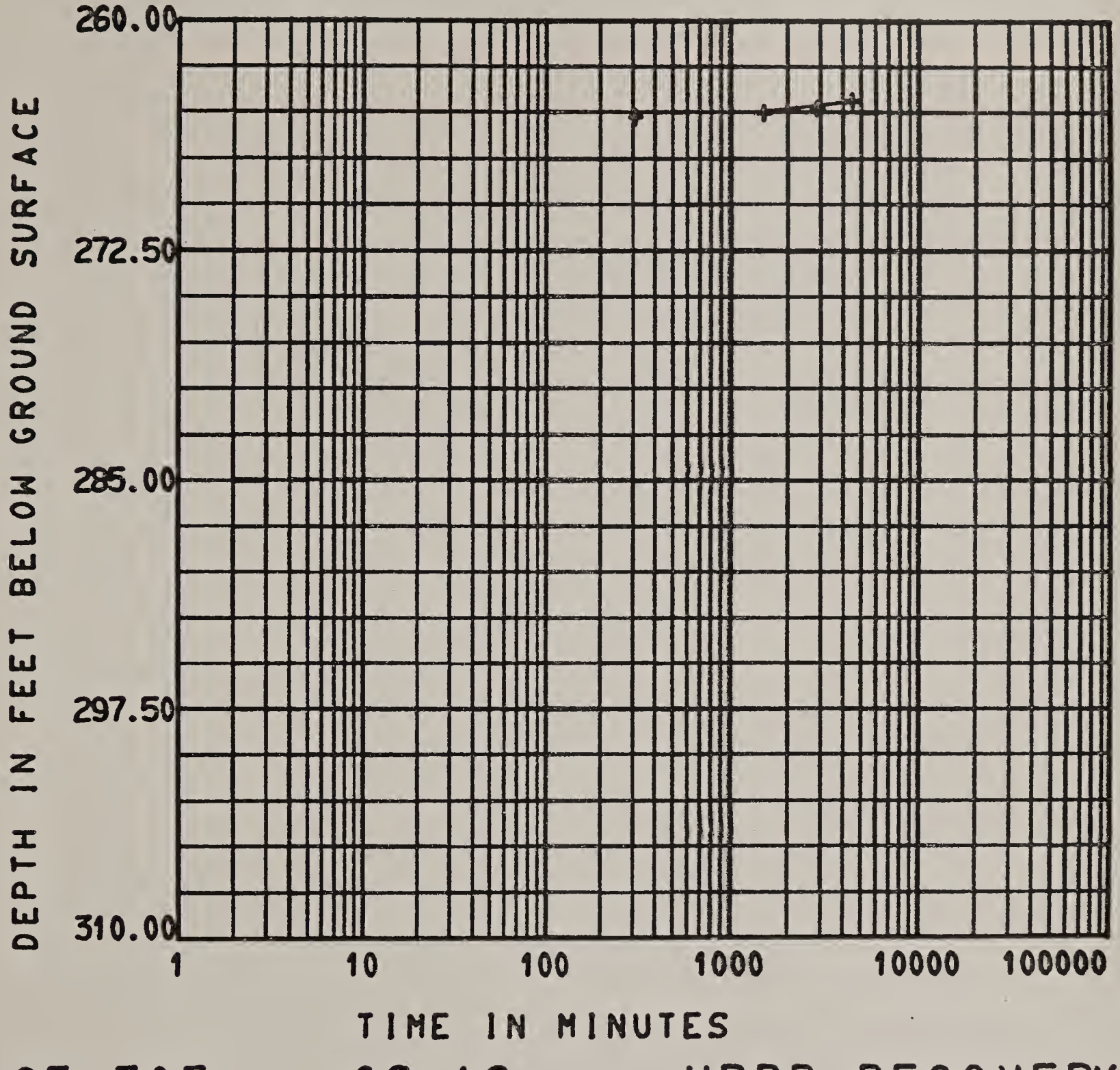
CE 705A CE 705A UPPR RECOVERY



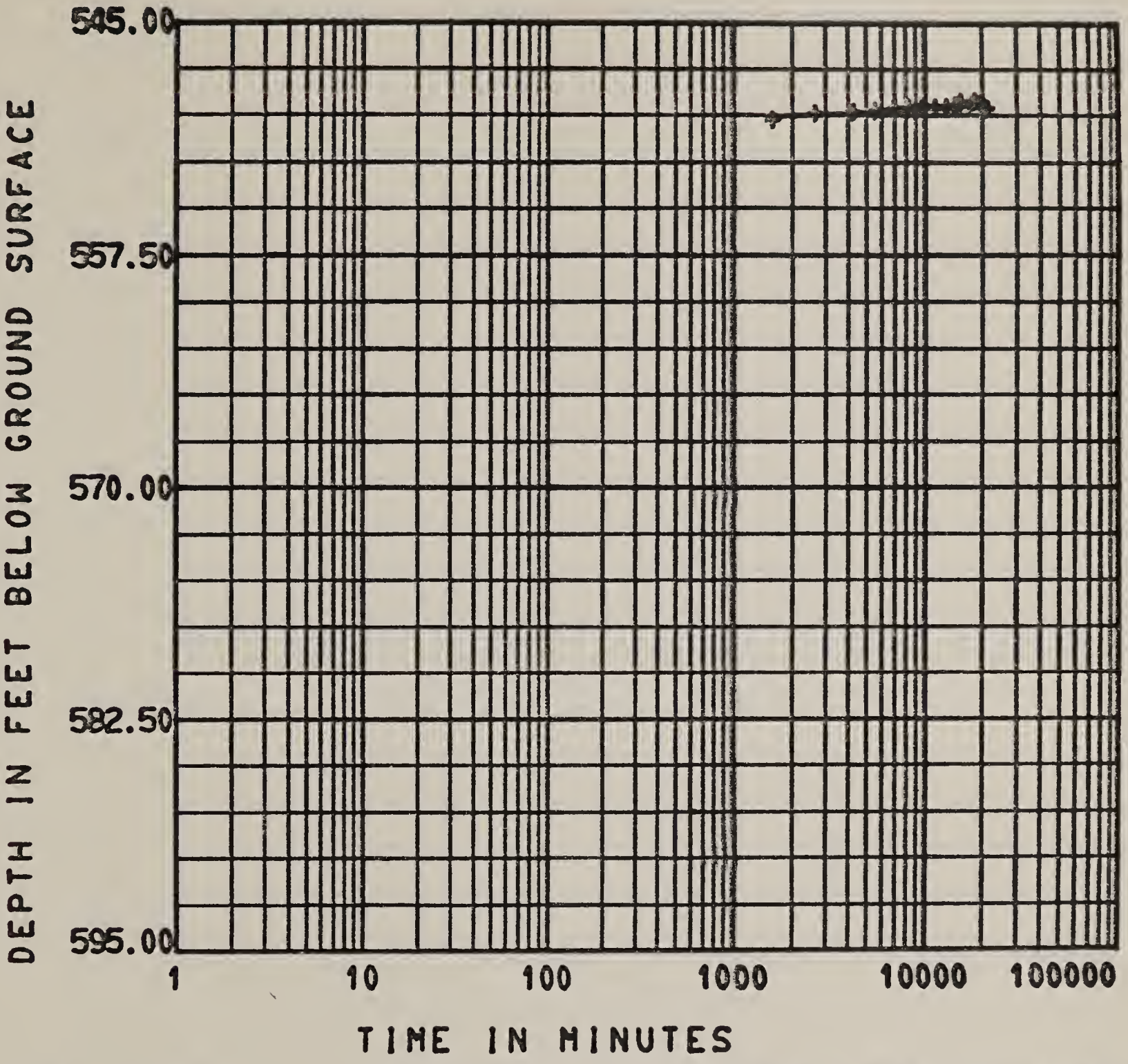
CE 705A CE 705A UPPR DRAWDOWN



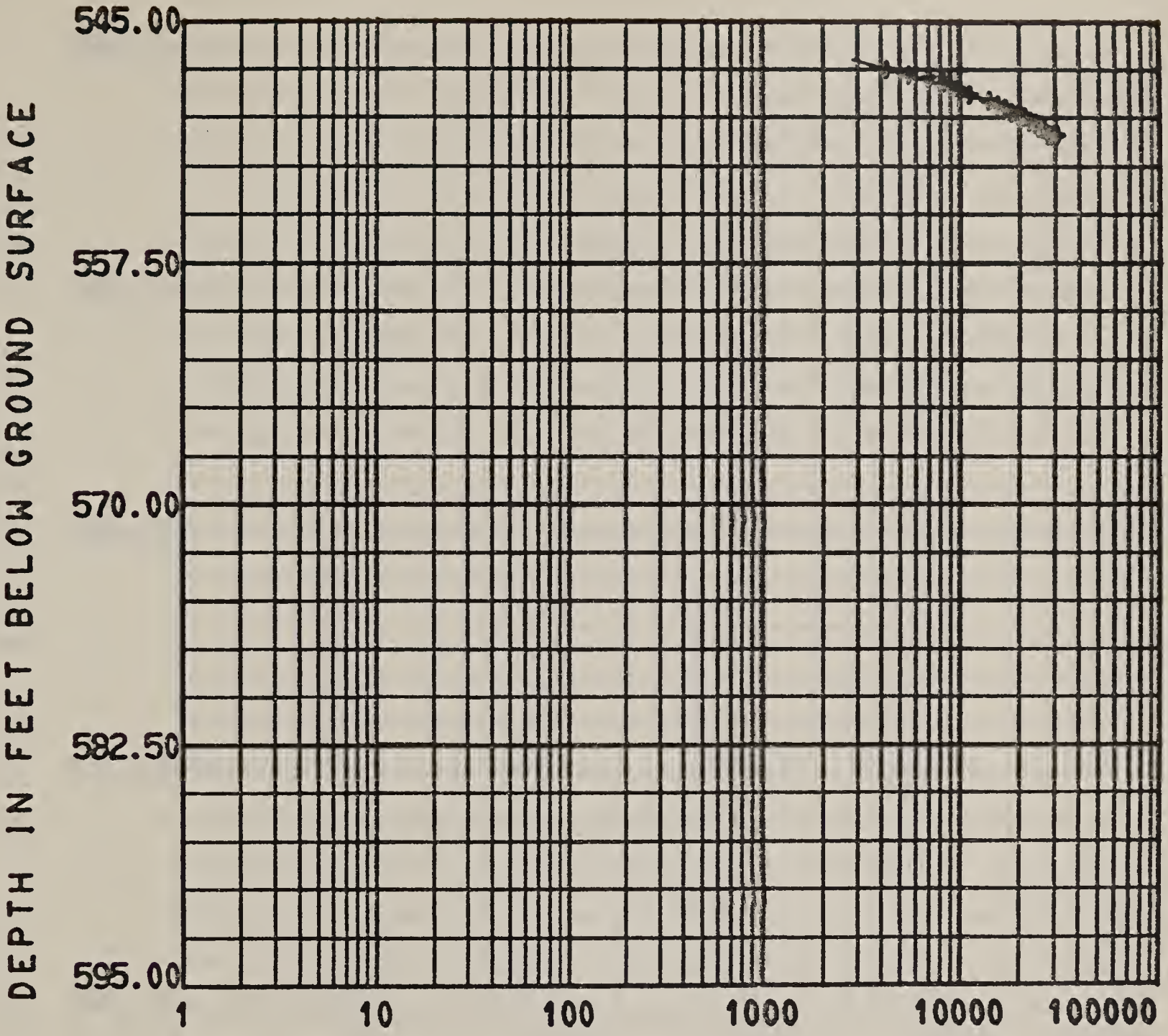
CE 705A CE 705A UPPR RECOVERY



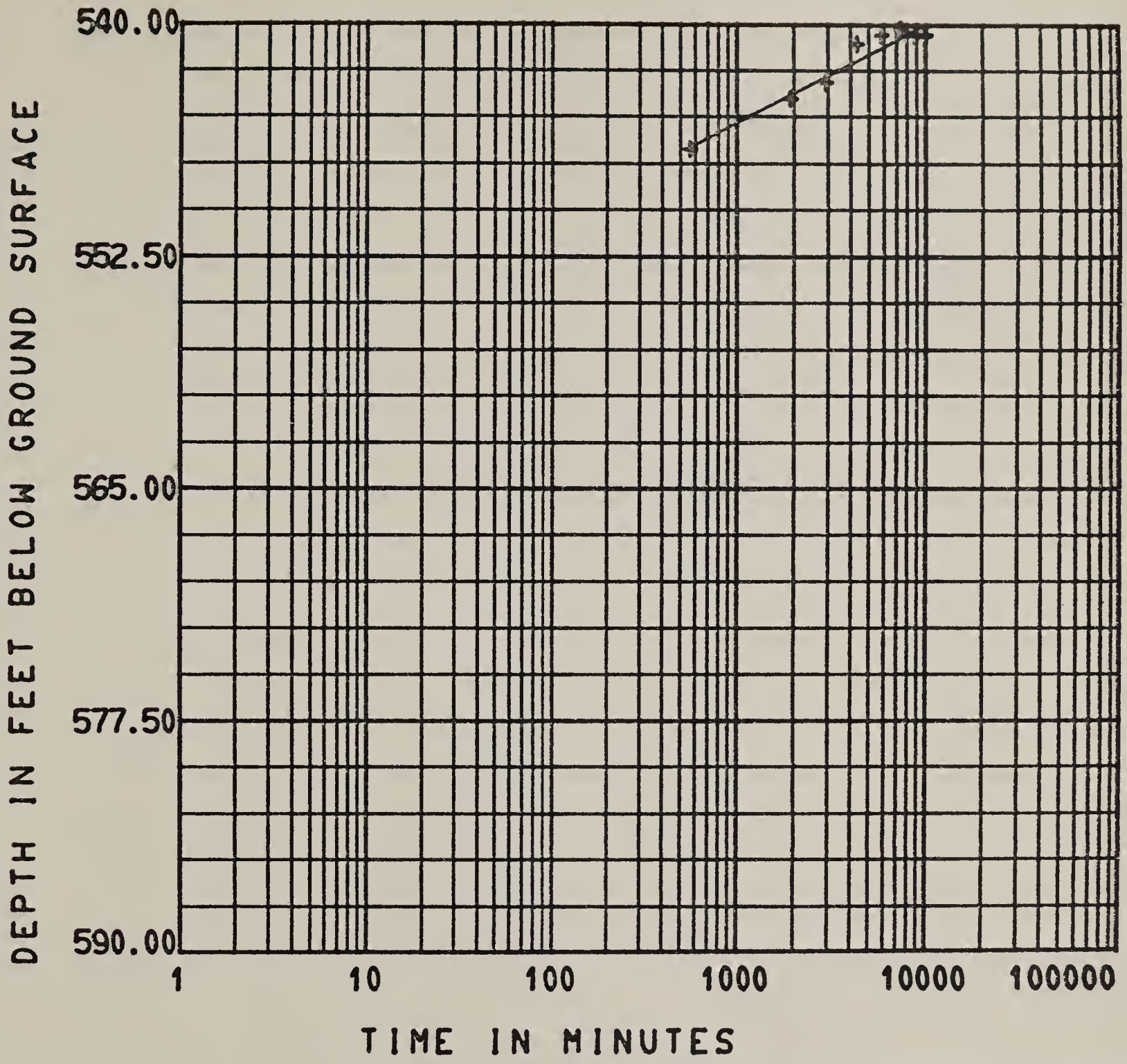
CE 707 GS-12 UPPR RECOVERY



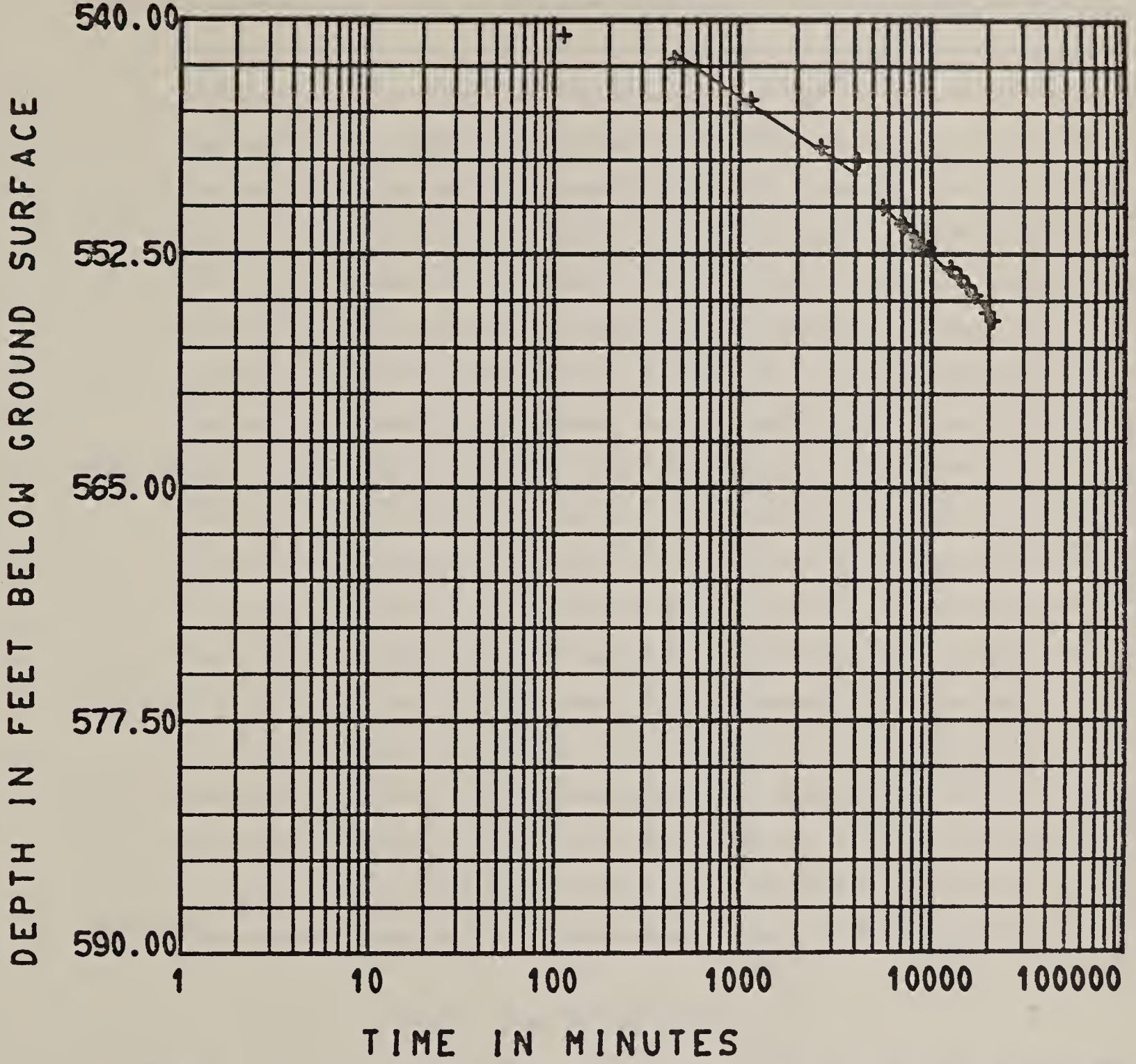
CE 707 GS-16 LOWR RECOVERY



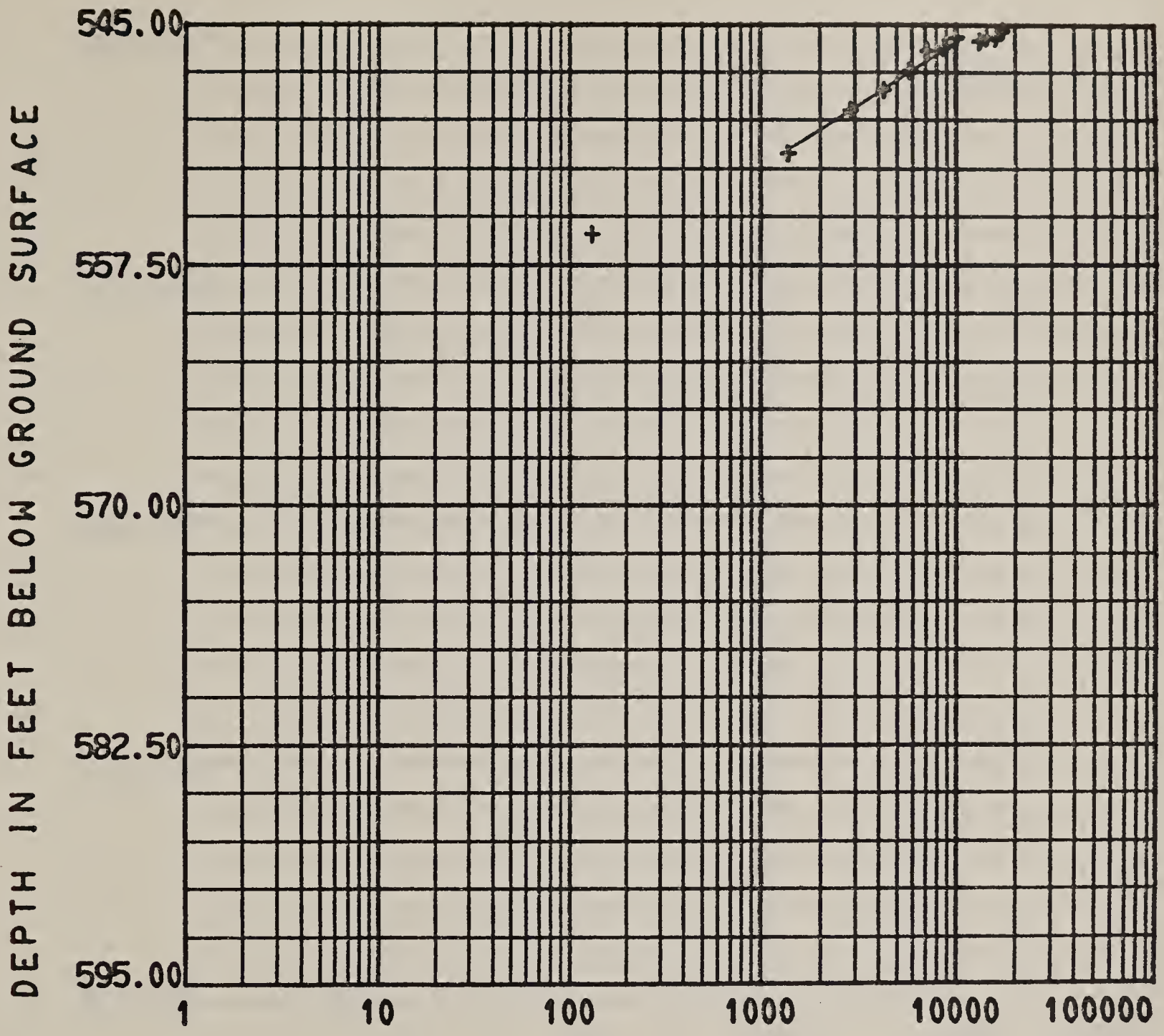
CE 707 GS-16 LOWR DRAWDOWN



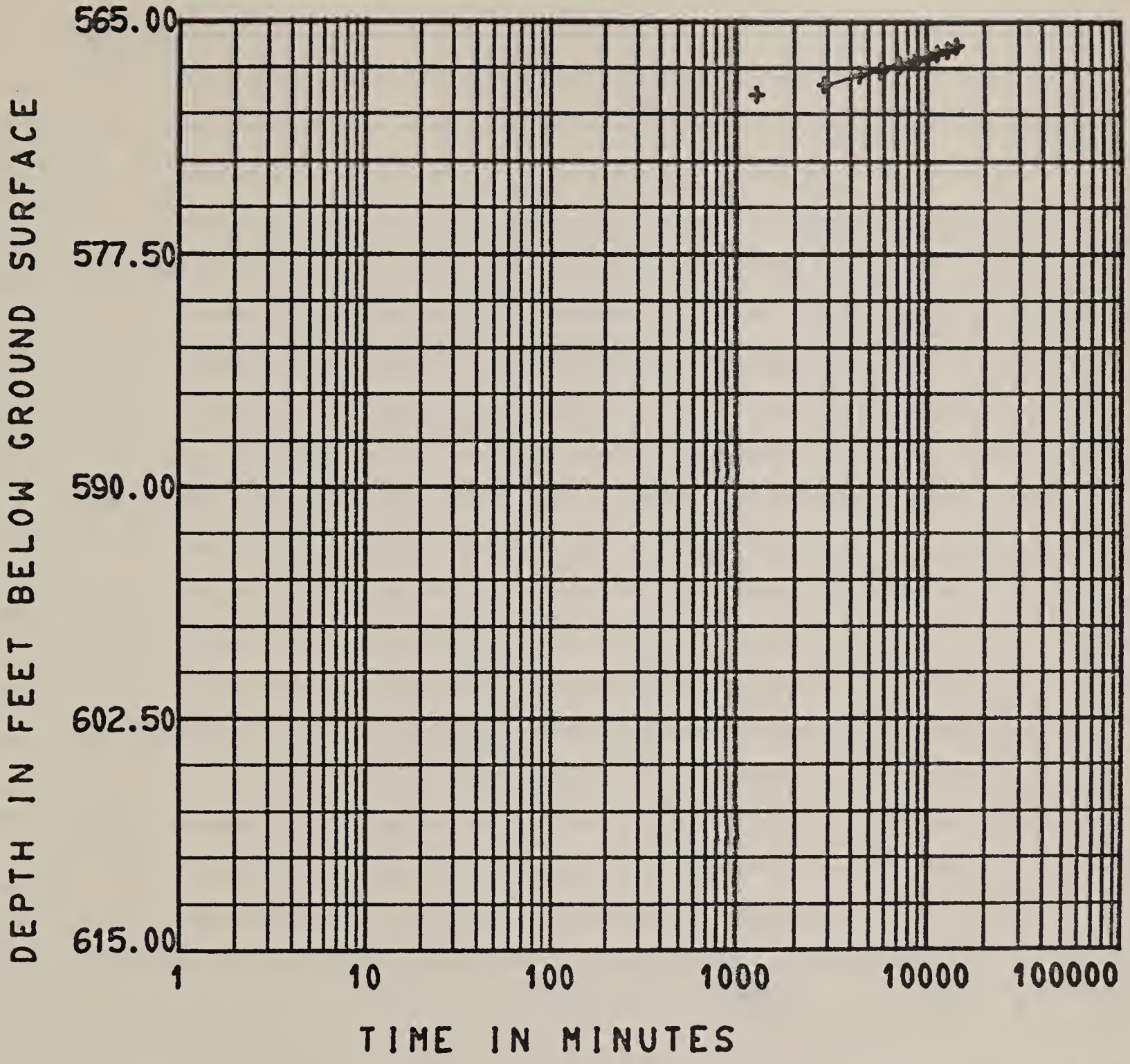
CE 707 GS-17 LOWR RECOVERY



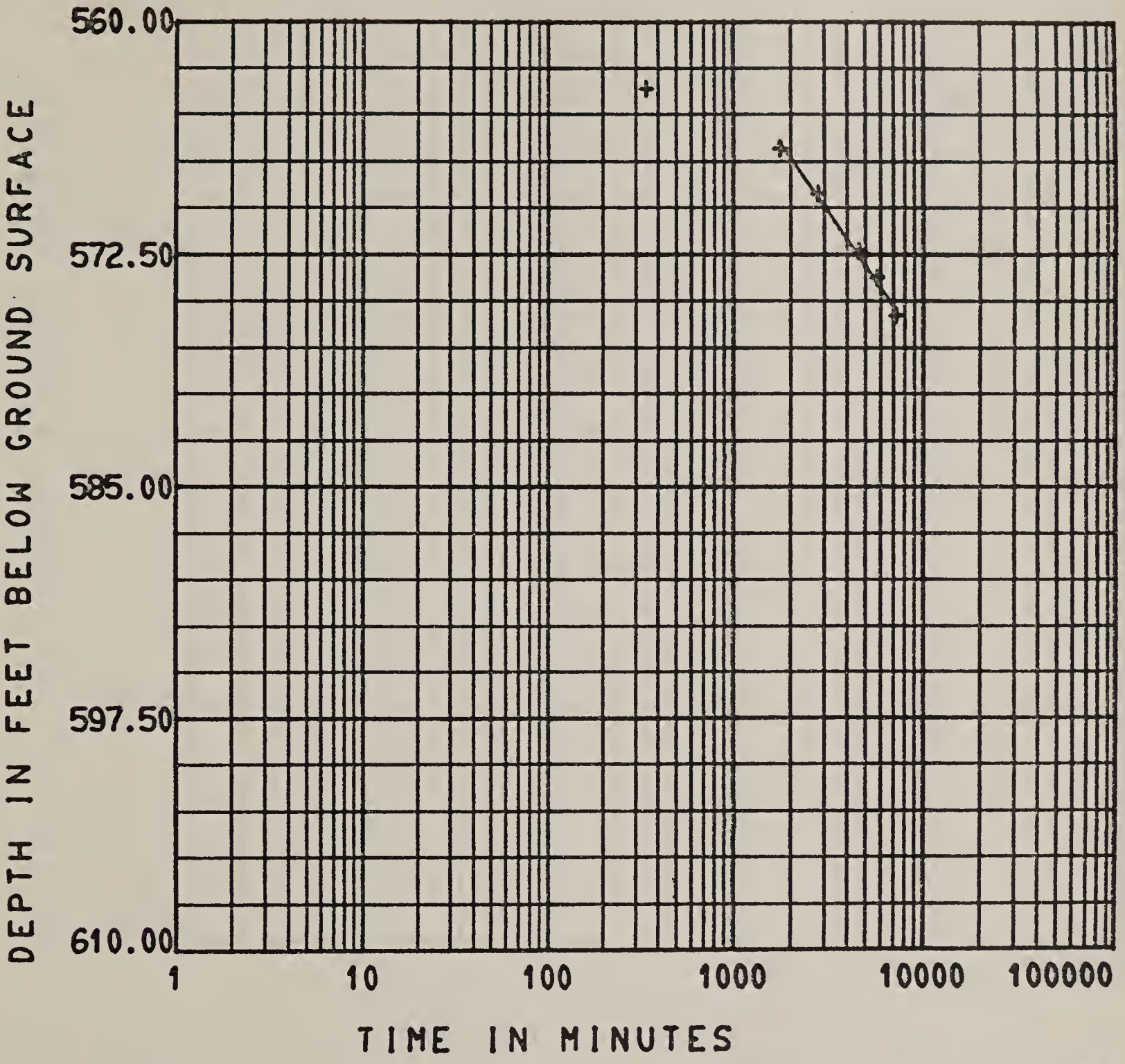
CE 707 GS-17 LOWR DRAWDOWN



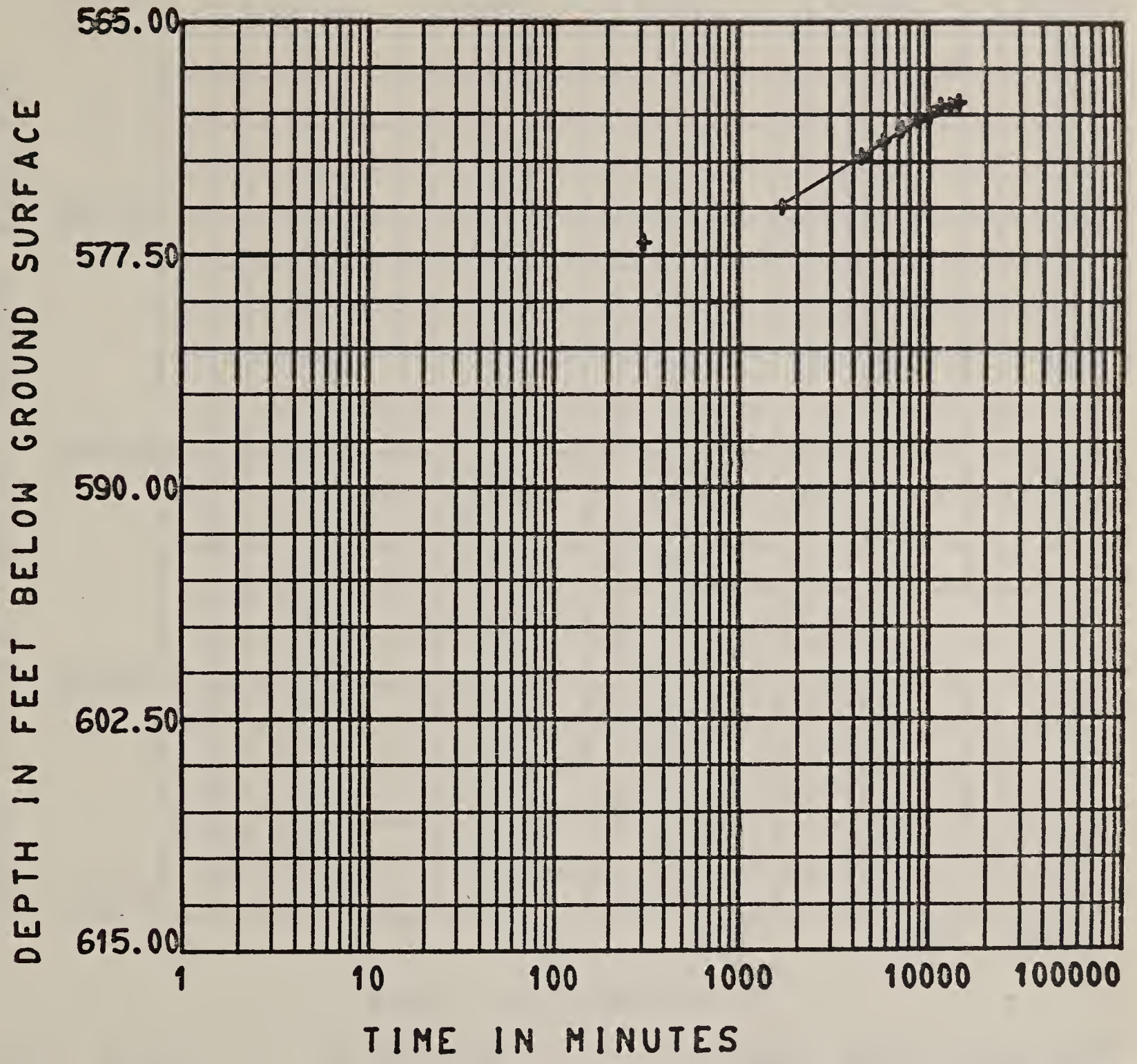
CE 707 GS-17 LOWR RECOVERY



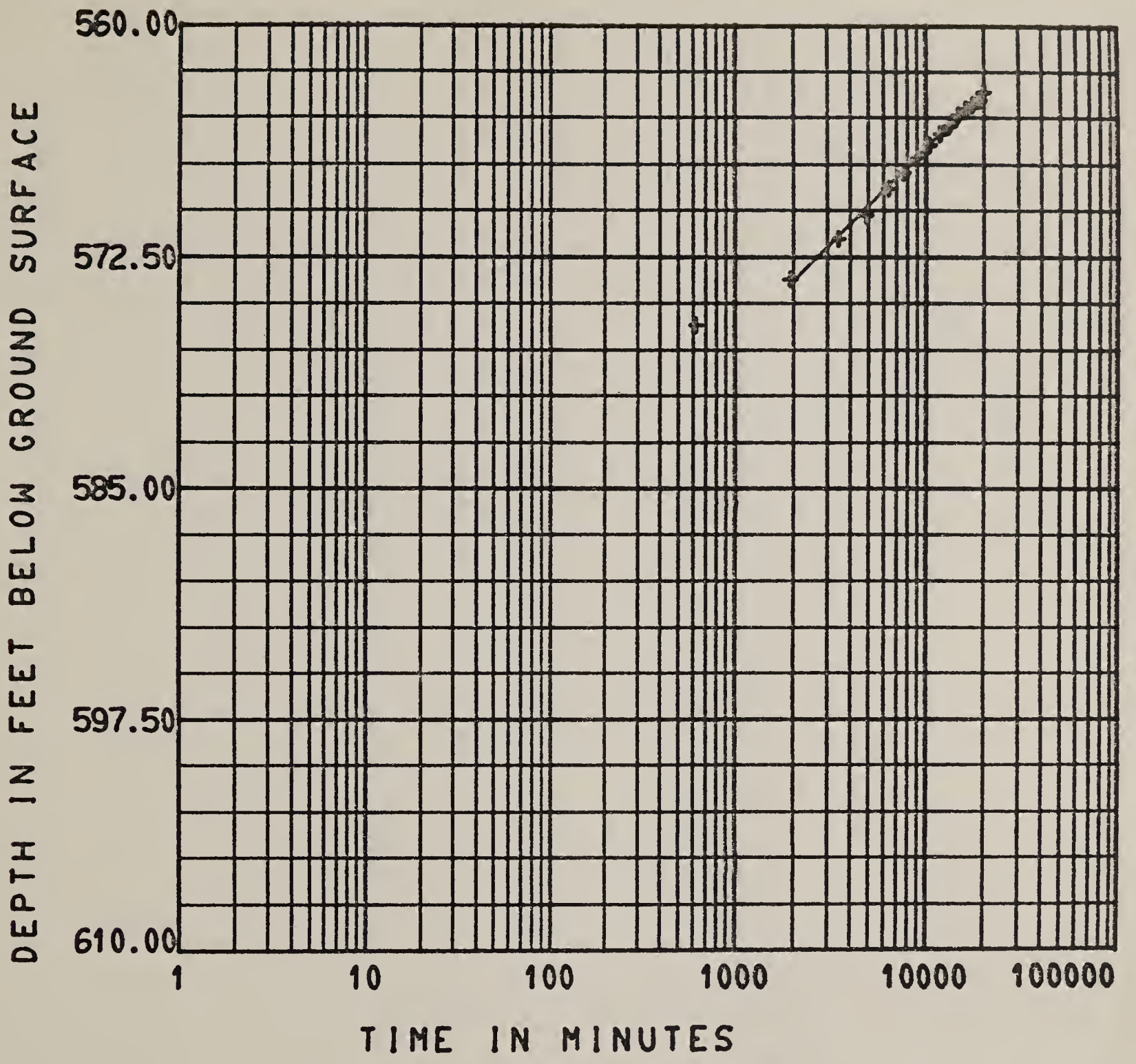
CE 707 GS-18 LOWR RECOVERY



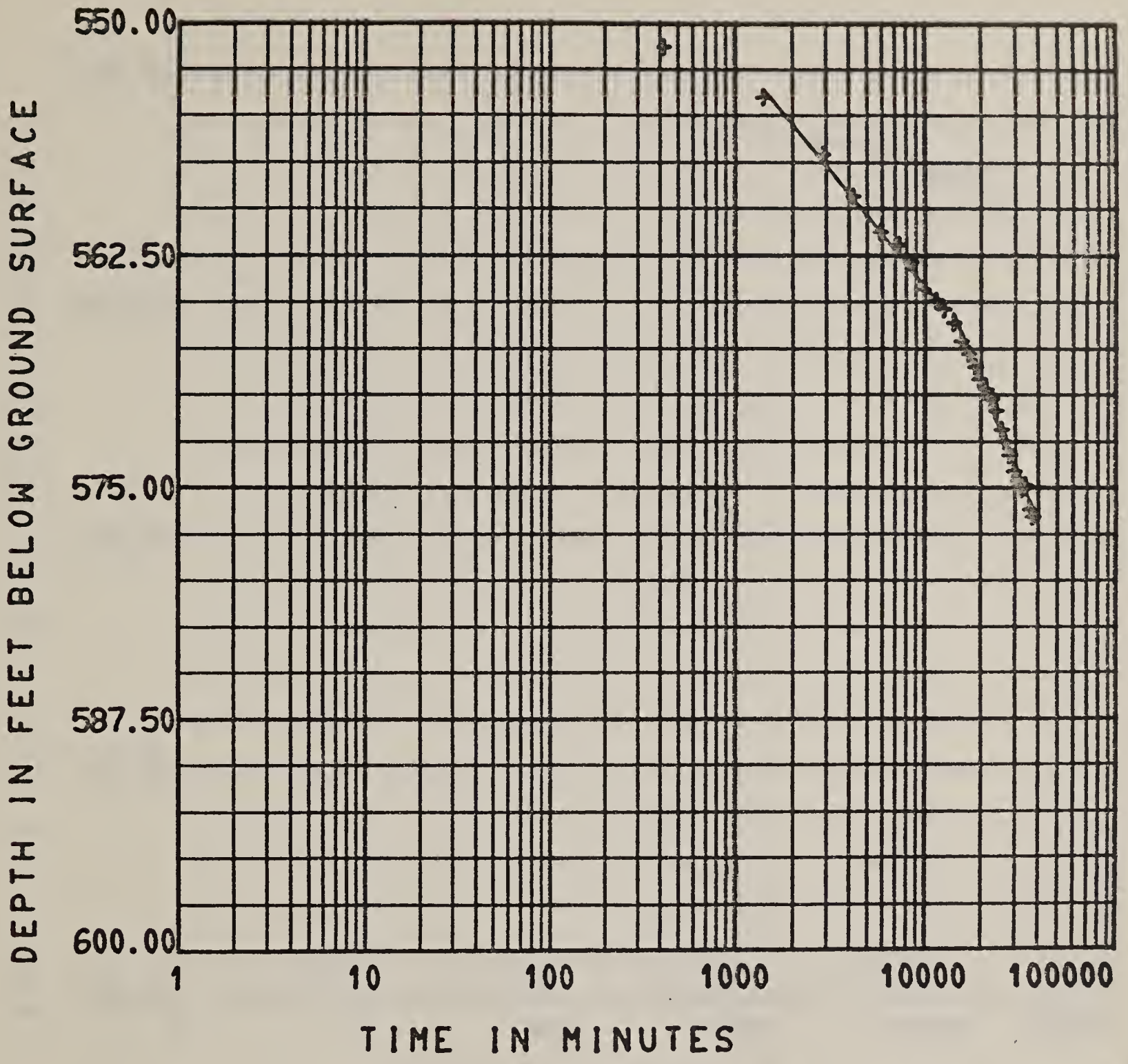
CE 707 GS-19 LOWR DRAWDOWN



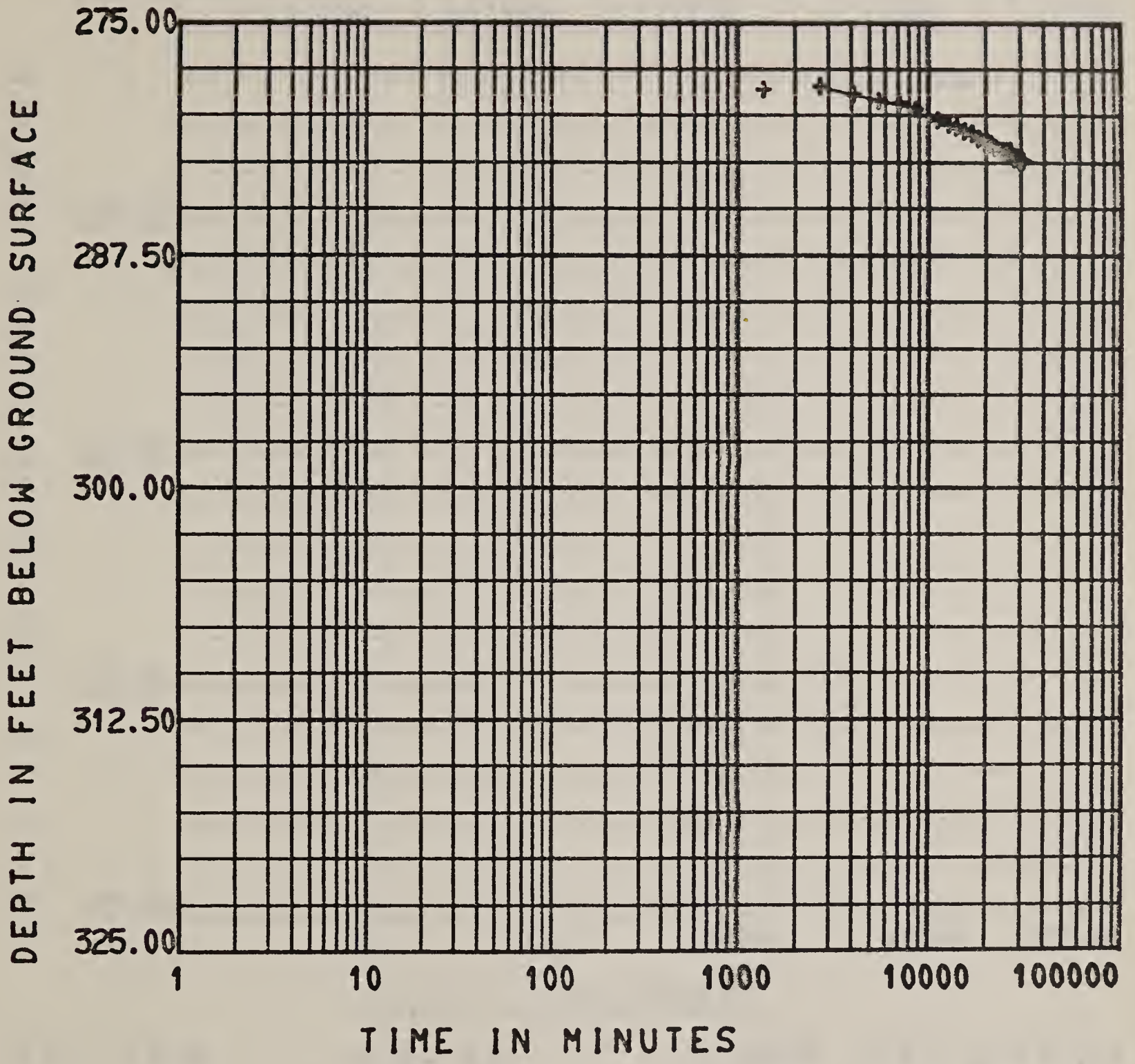
CE 707 GS-19 LOWR RECOVERY



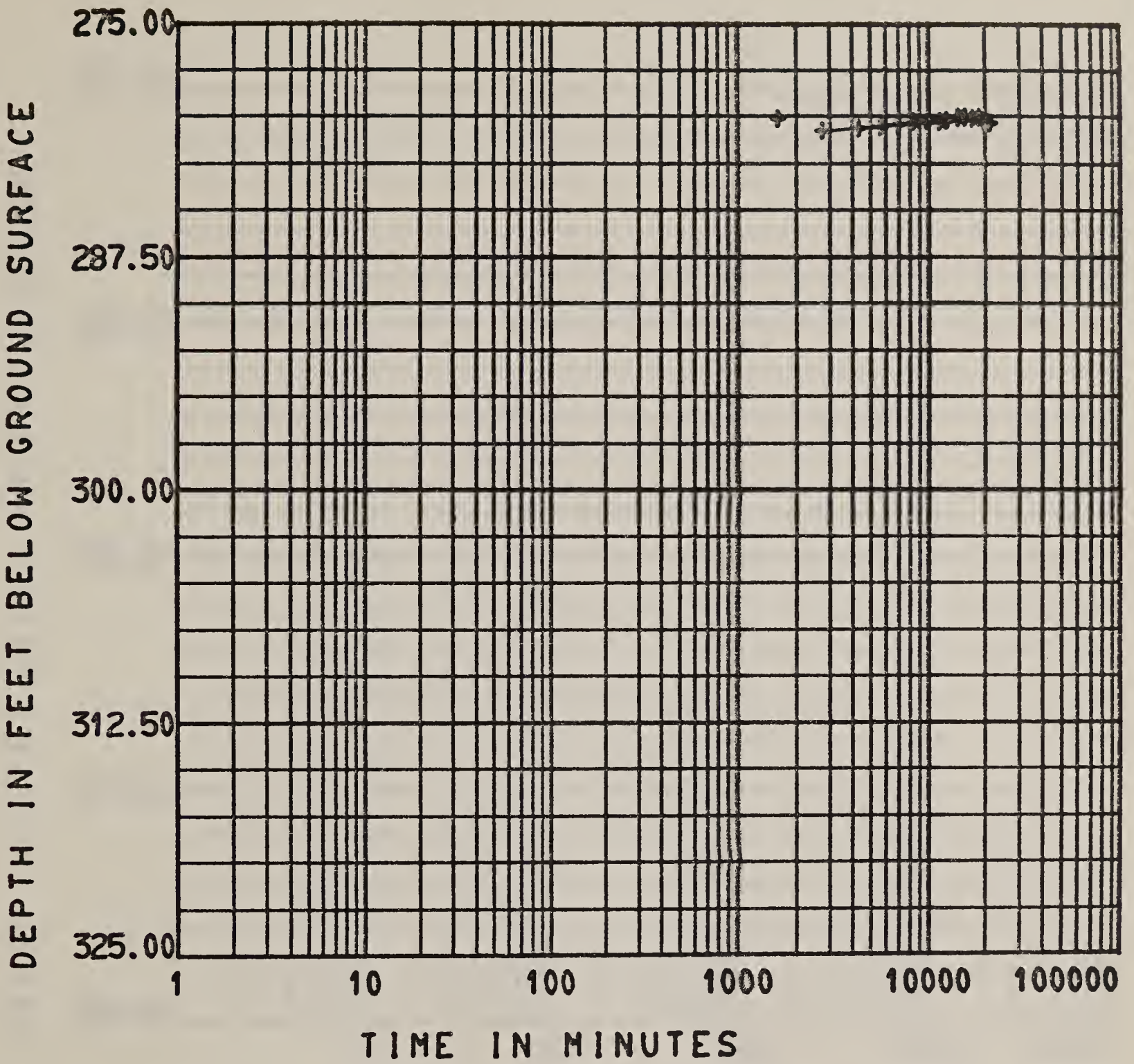
CE 707 GS-19 LOWR RECOVERY



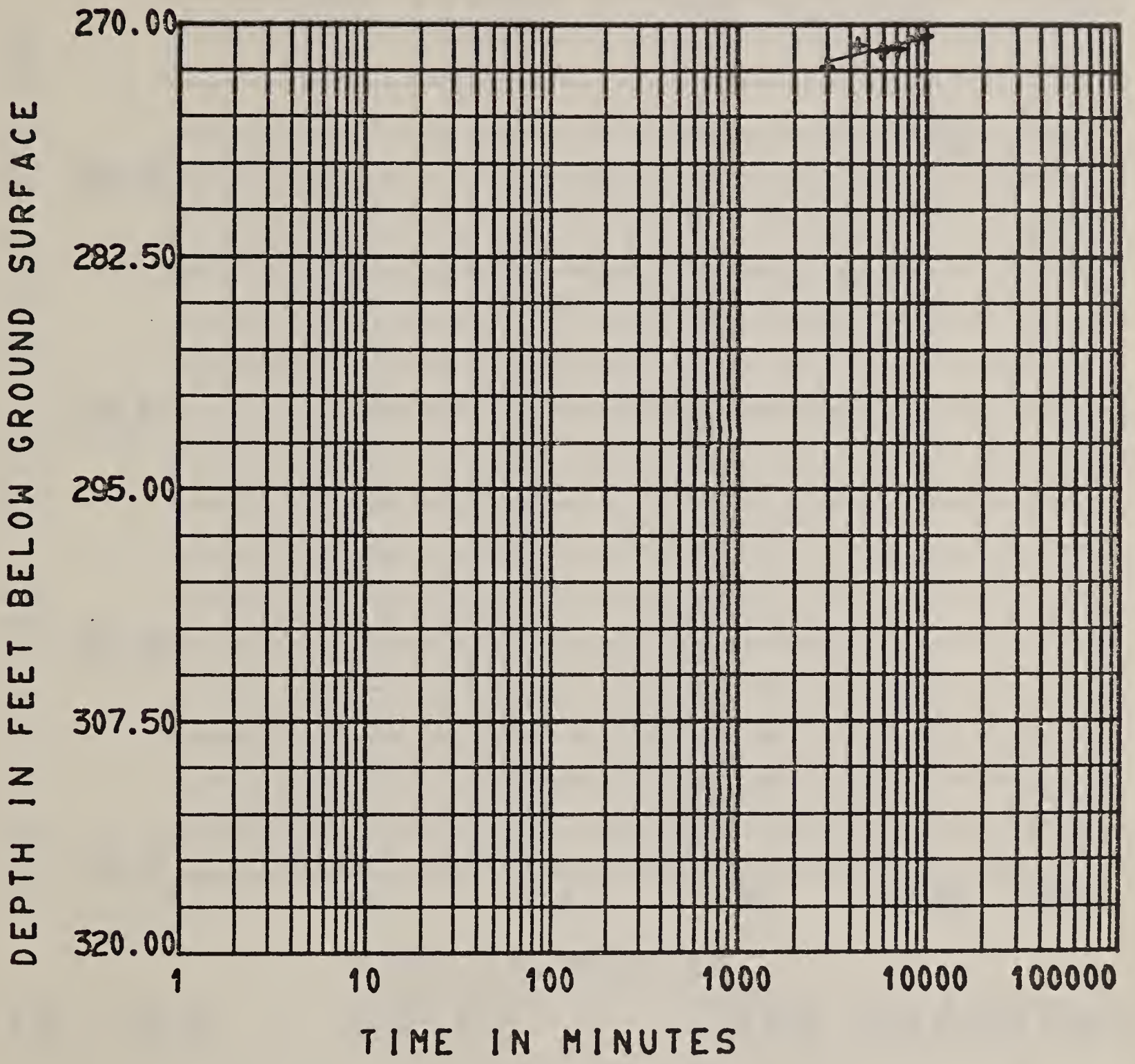
CE 707 GS-19 LOWR DRAWDOWN



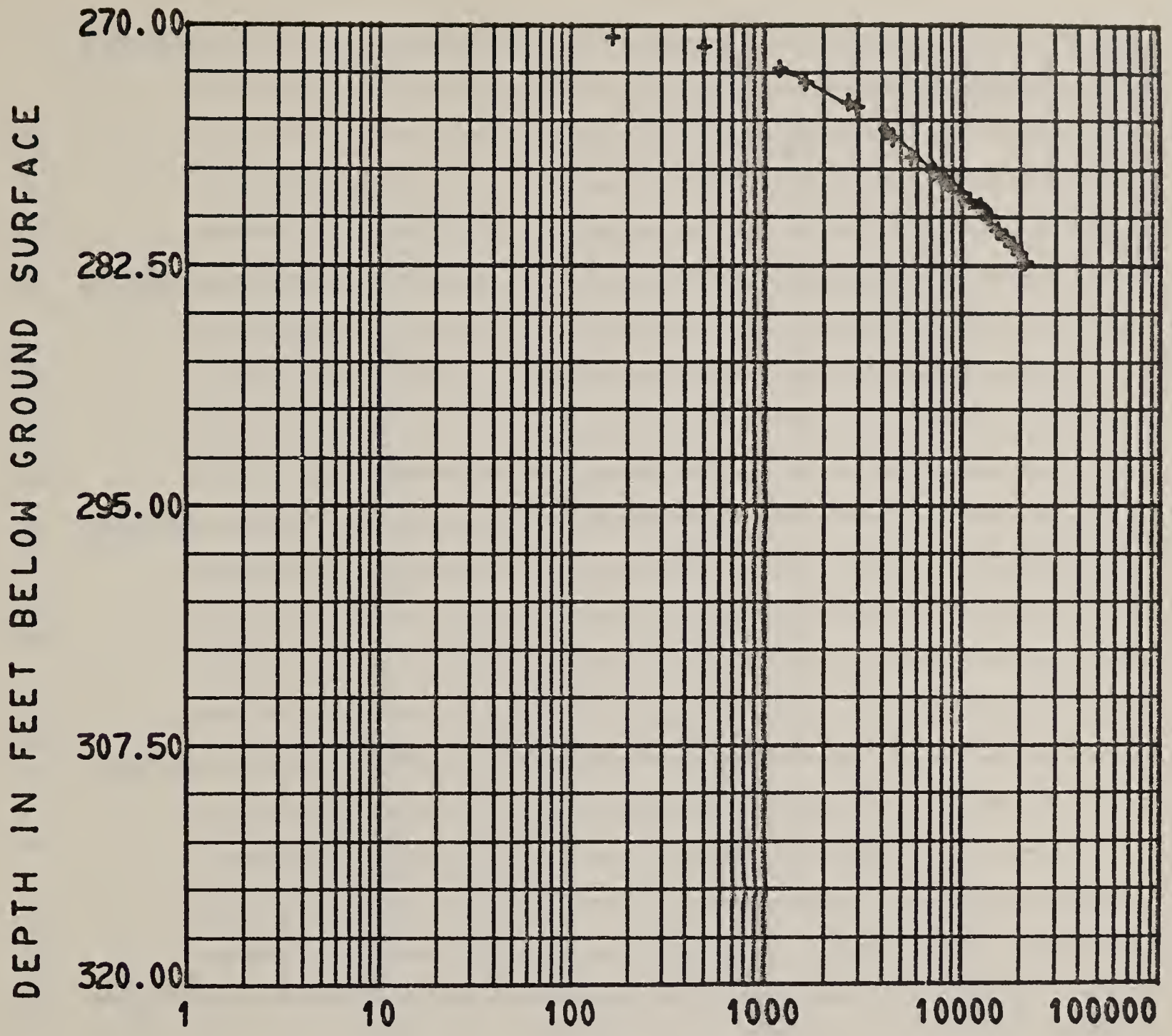
CE 708 GS-16 LOWR DRAWDOWN



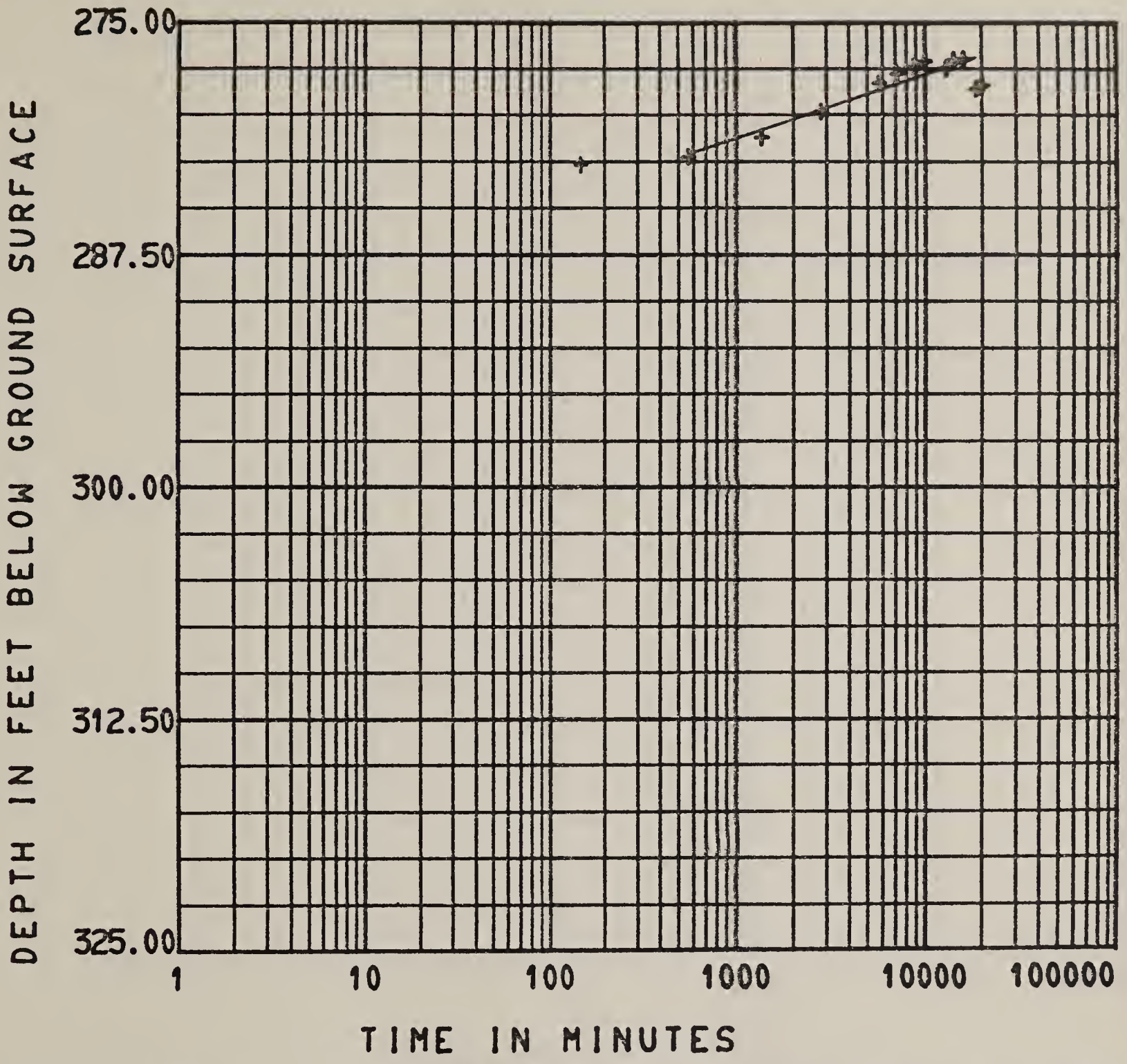
CE 708 GS-16 LOWR RECOVERY



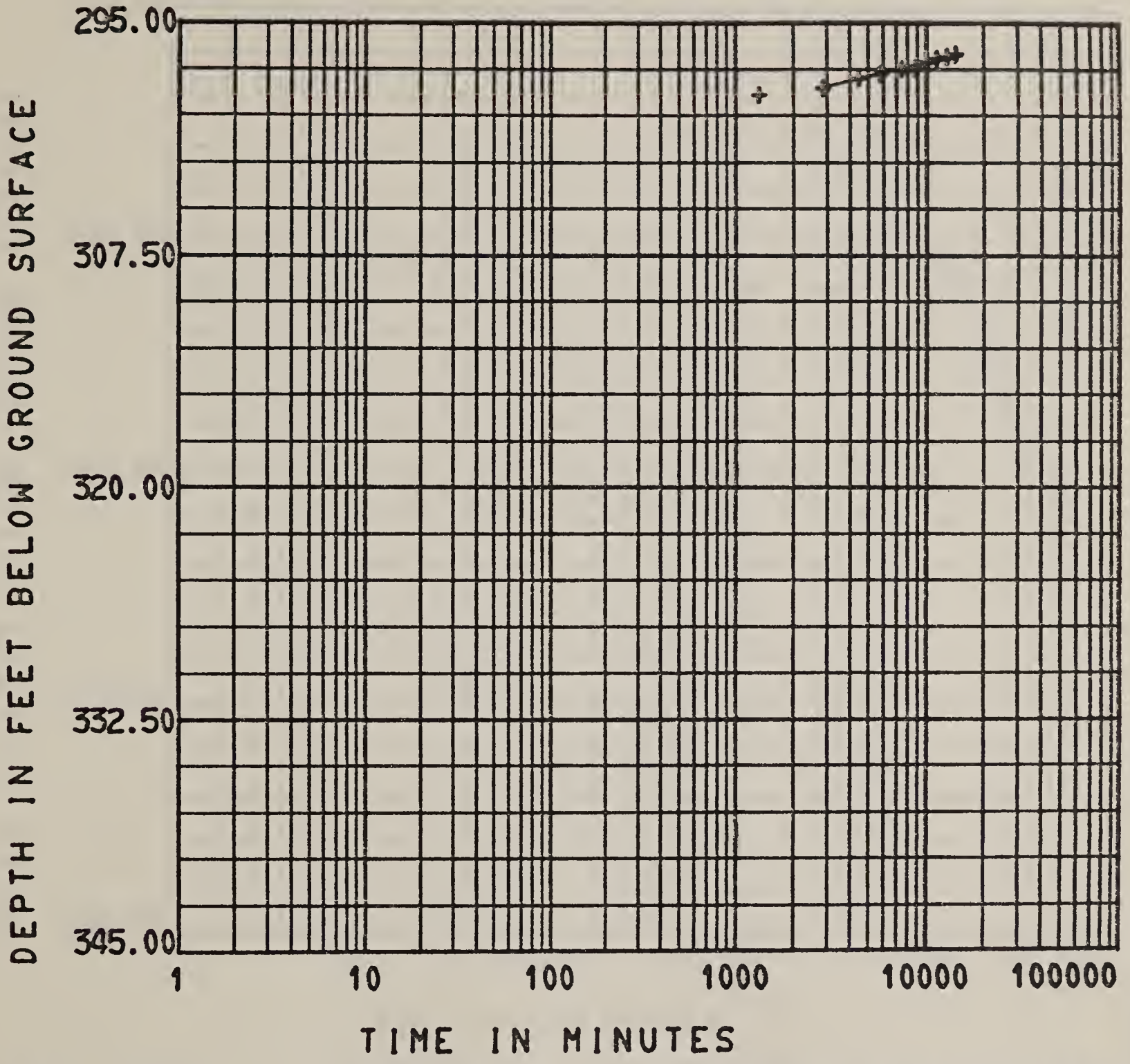
CE 708 GS-17 LOWR RECOVERY



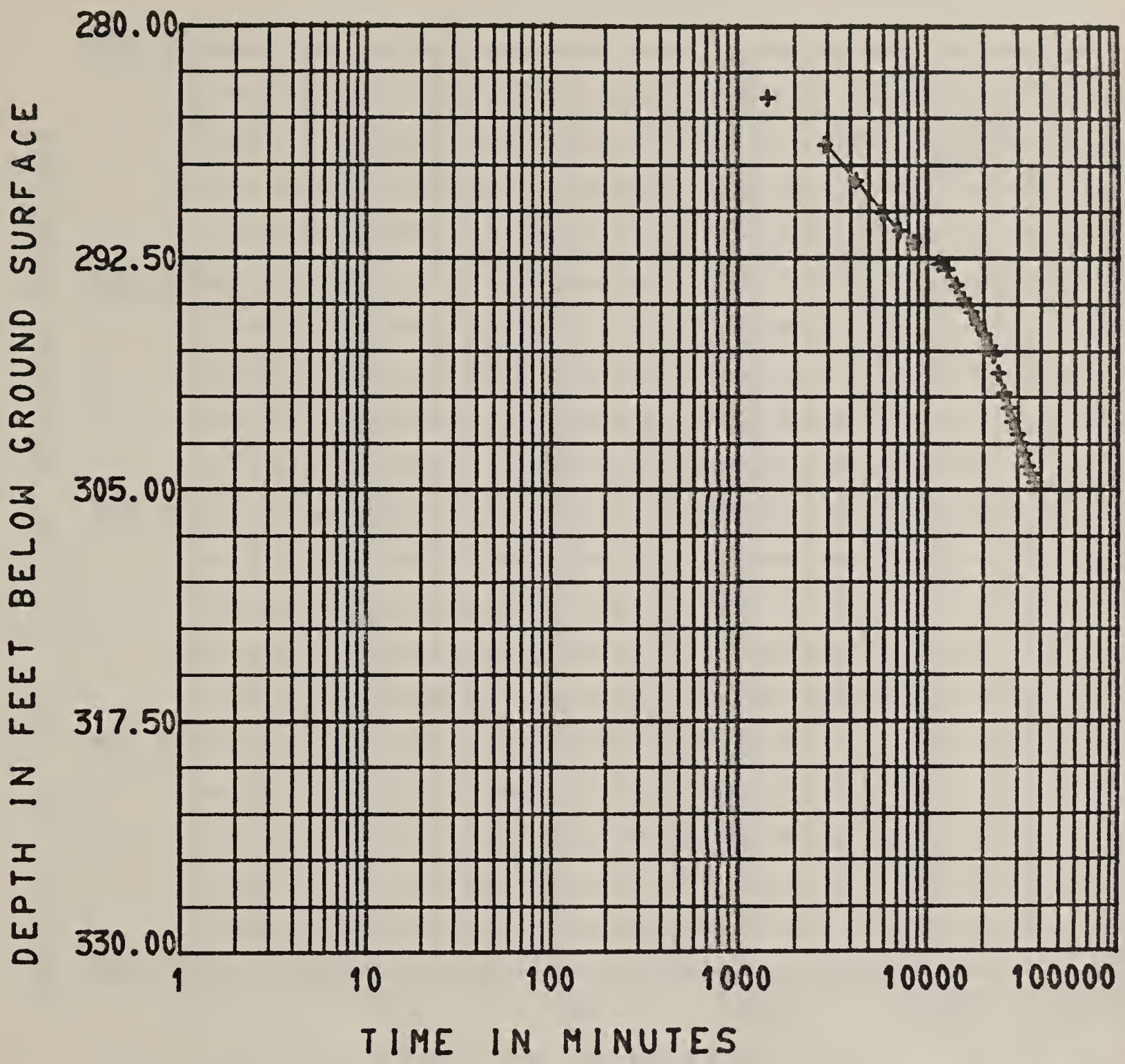
CE 708 GS-17 LOWR DRAWDOWN



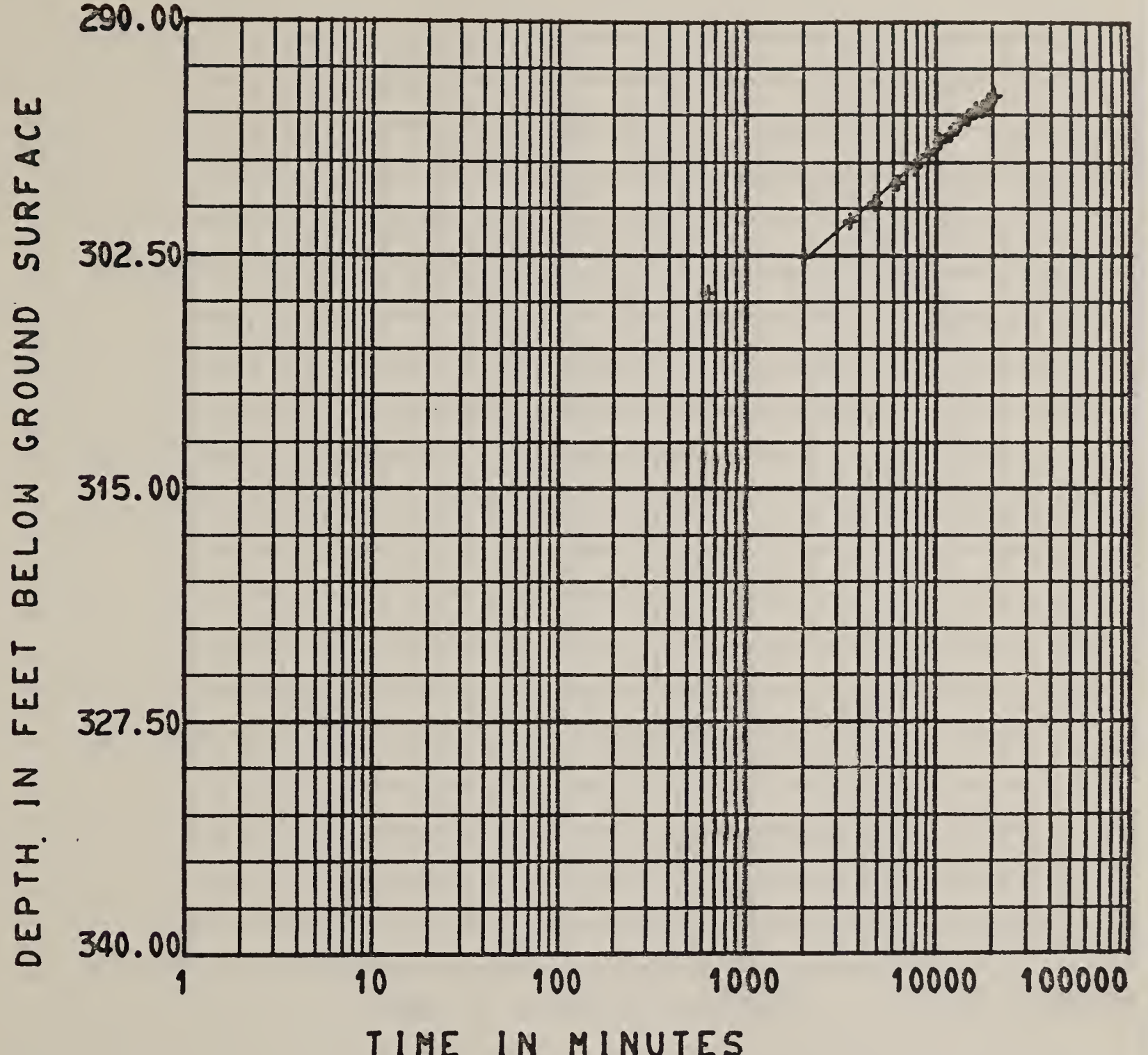
CE 708 GS-17 LOWR RECOVERY



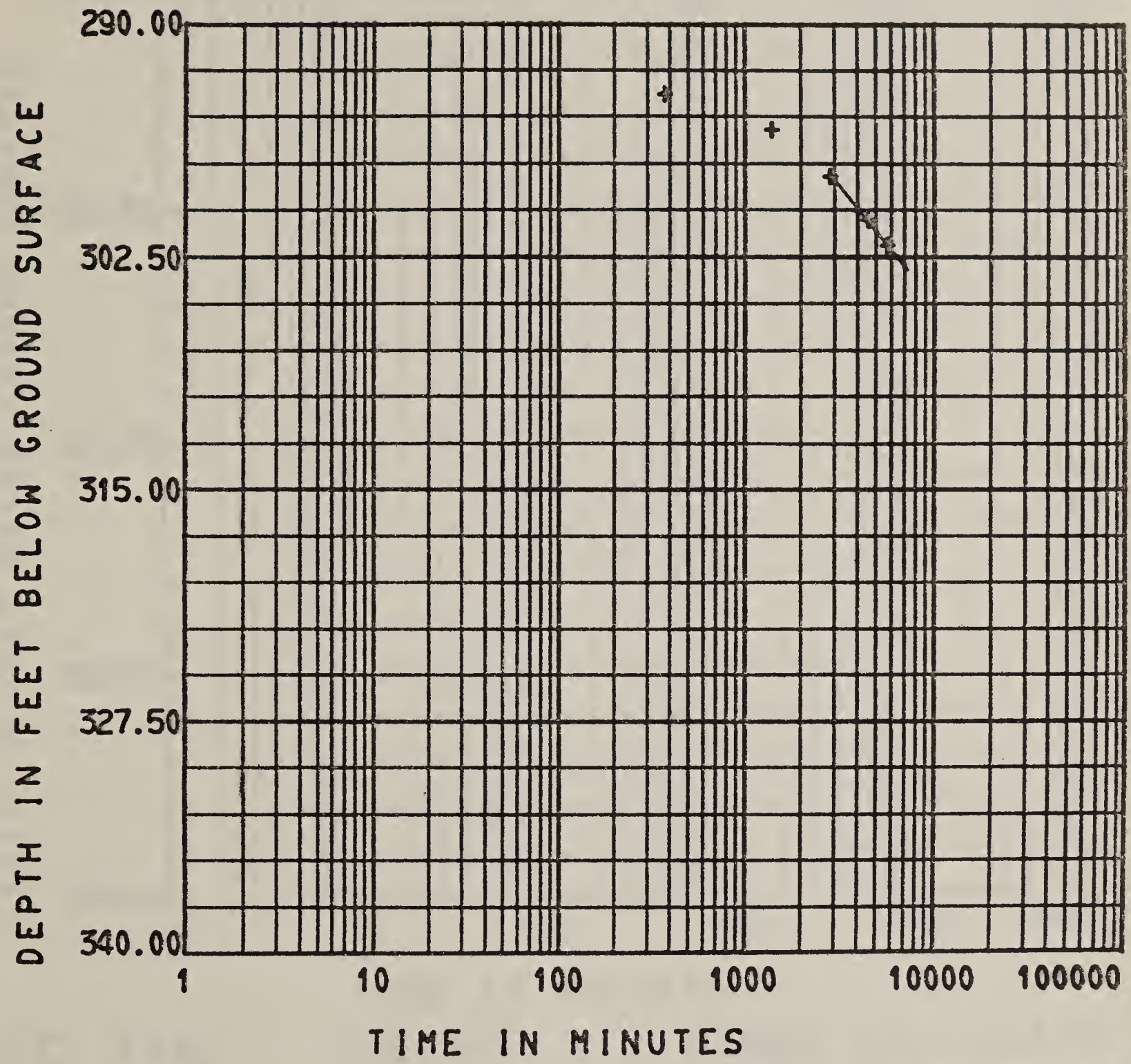
CE 708 GS-18 LOWR RECOVERY



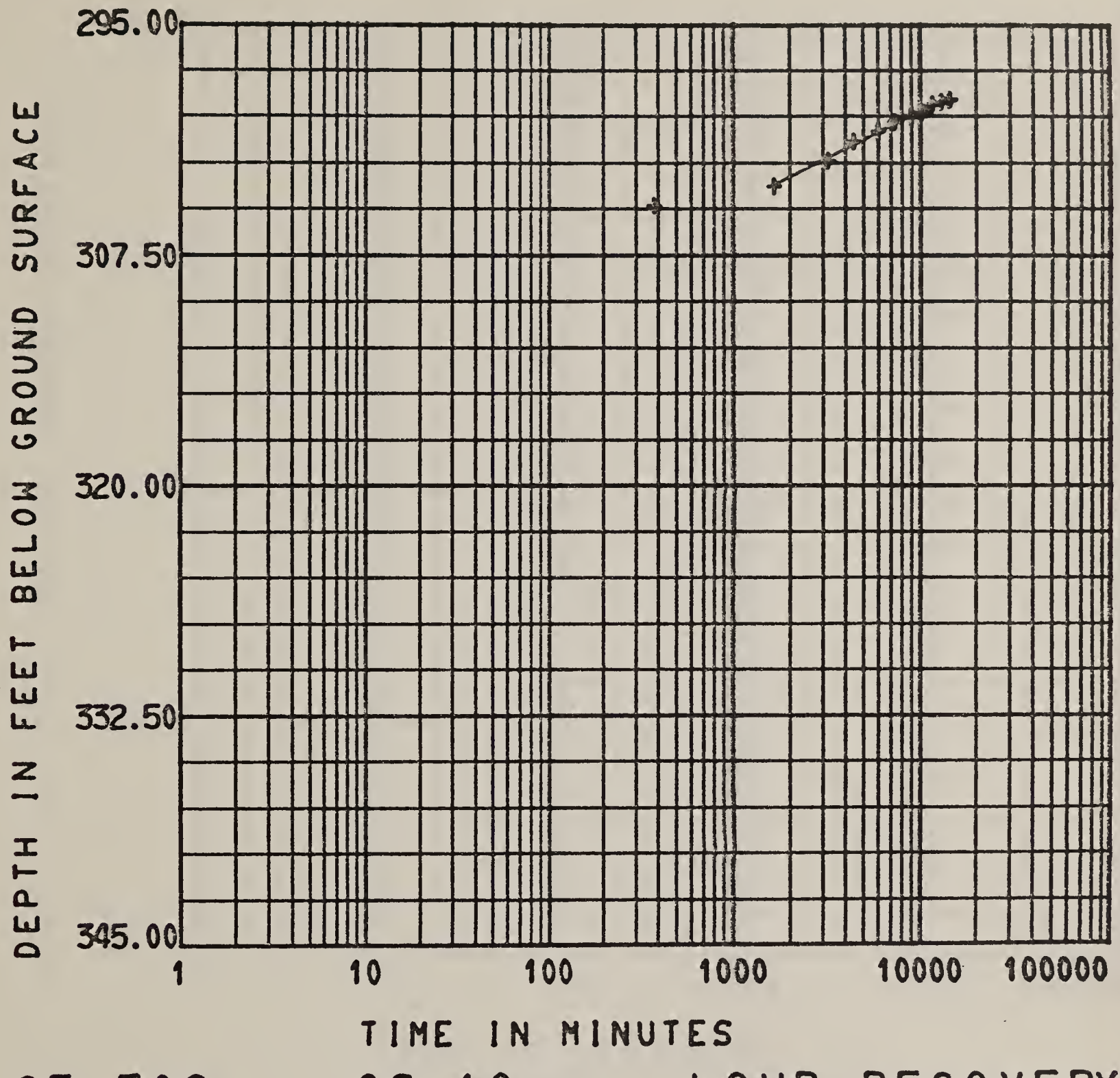
CE 708 GS-19 LOWR DRAWDOWN



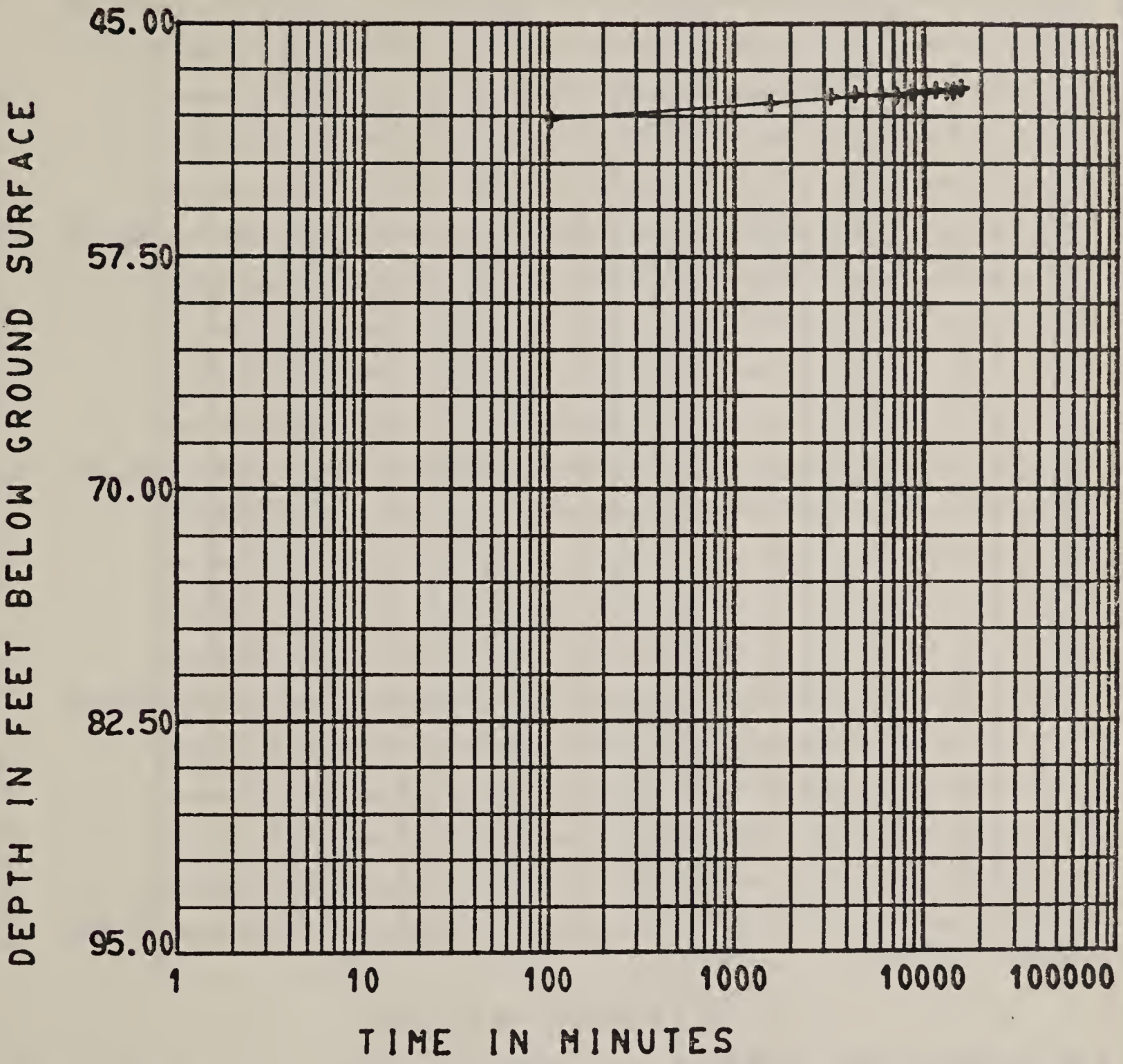
CE 708 GS-19 LOWR RECOVERY



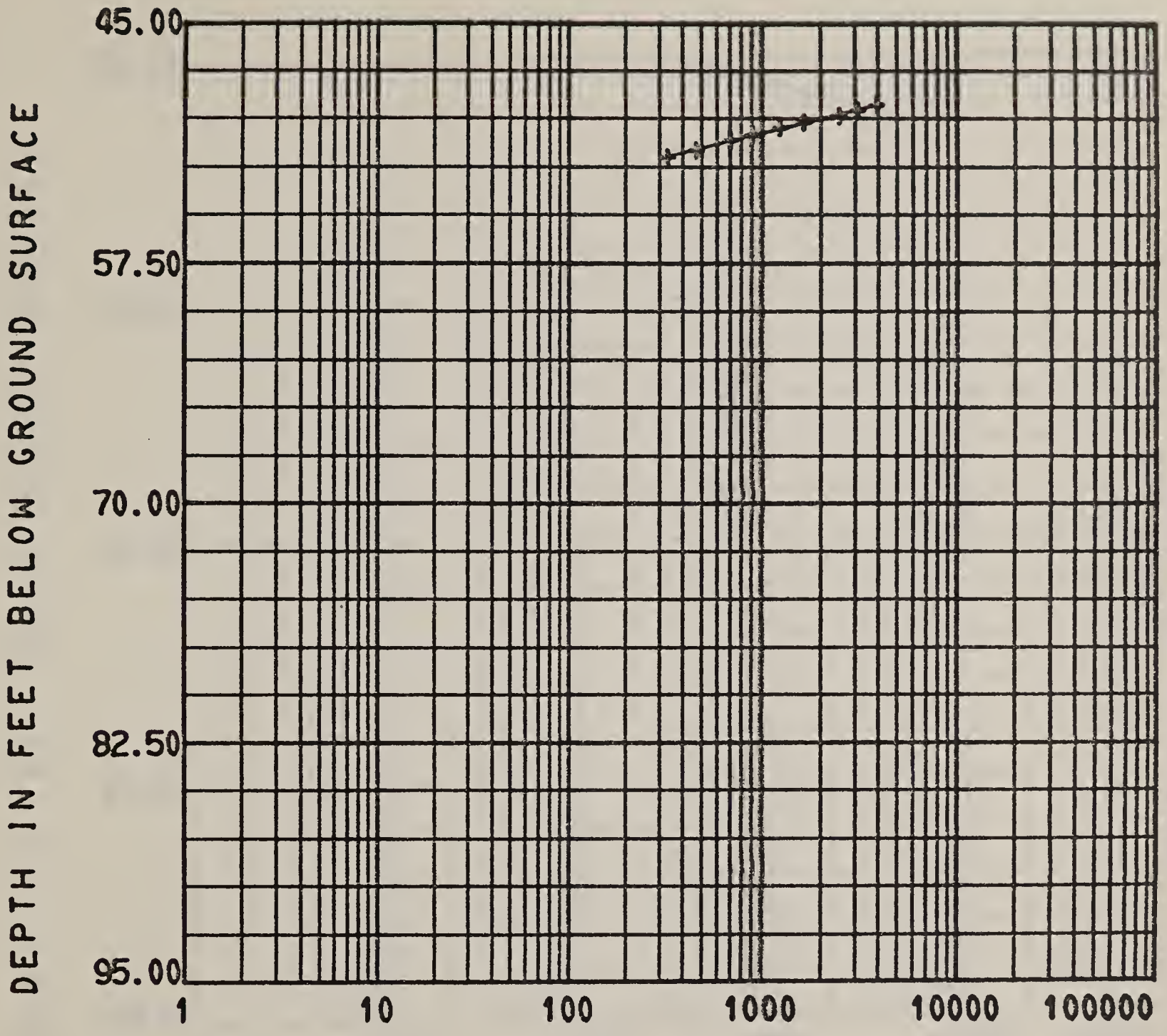
CE 708 GS-19 LOWR DRAWDOWN



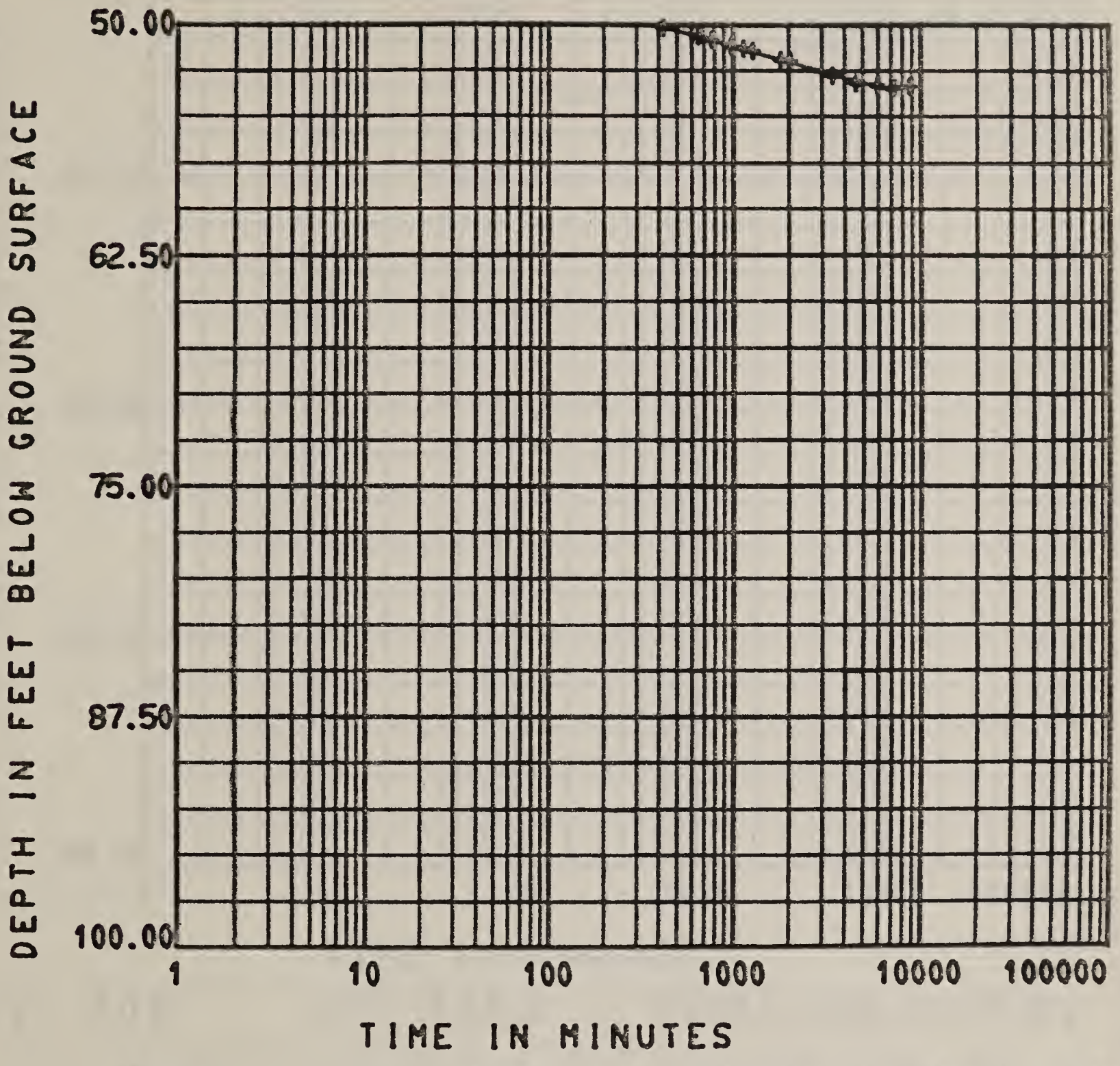
CE 708 GS-19 LOWR RECOVERY



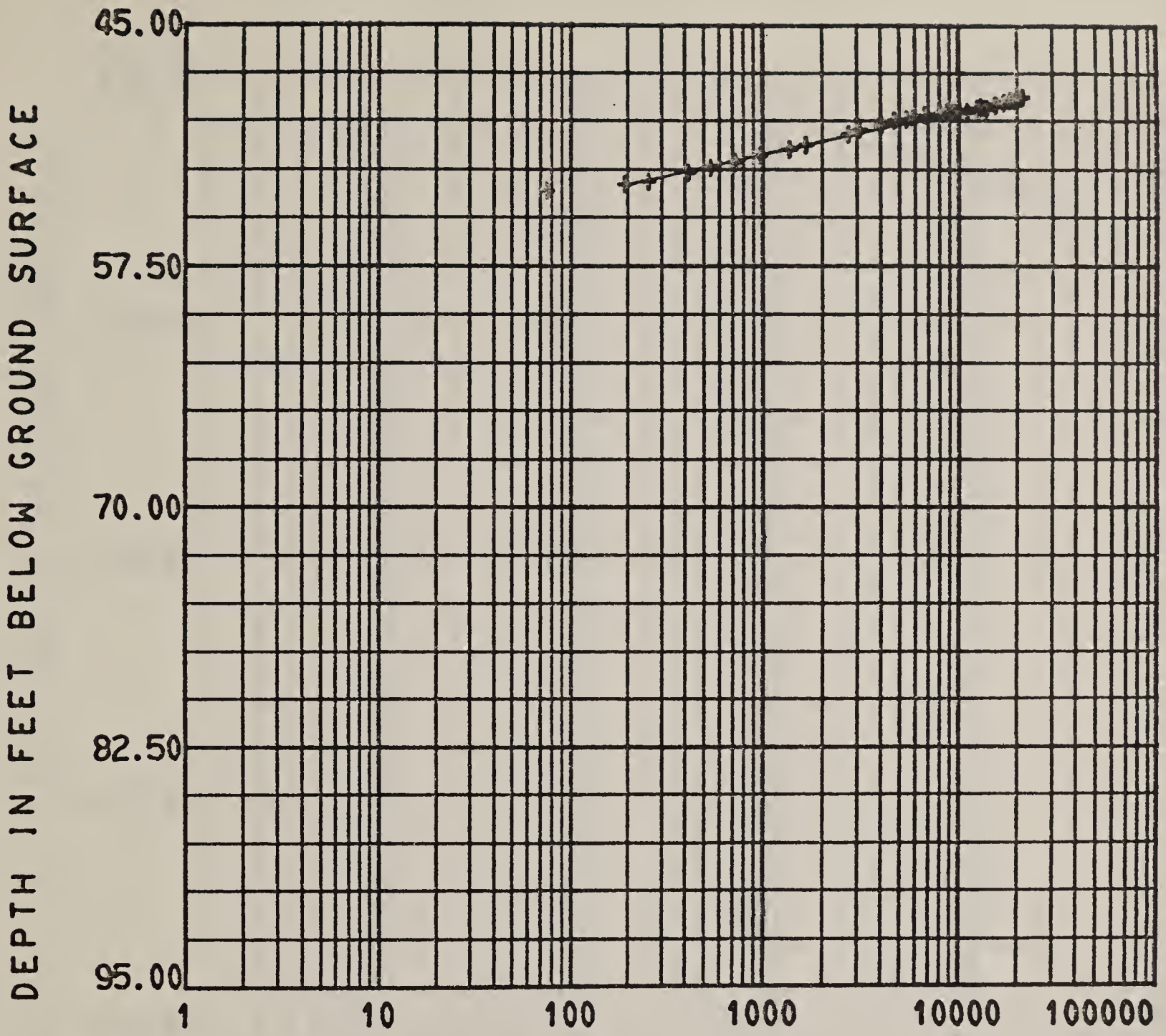
CE 709 CE 705A UPPR RECOVERY



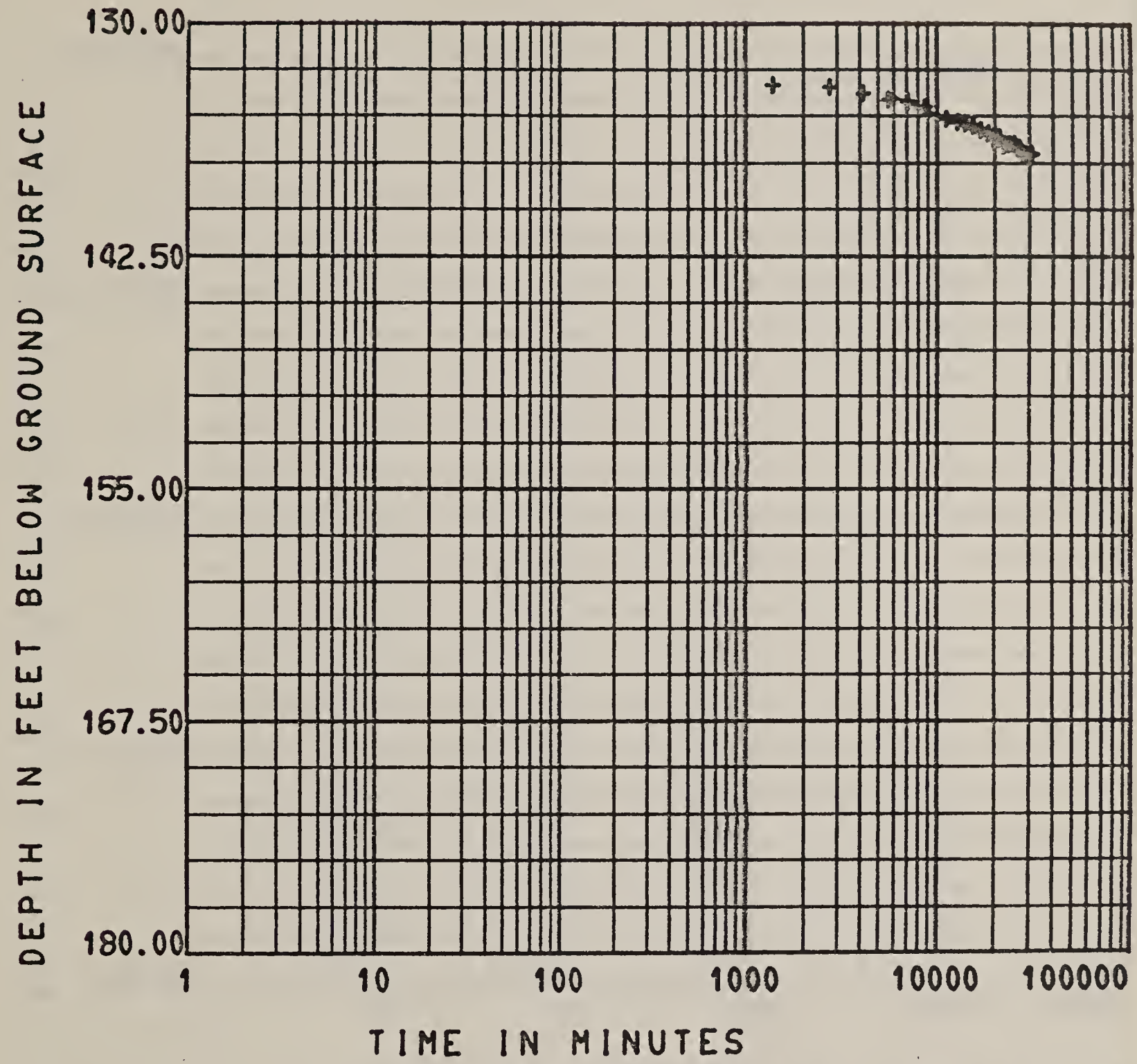
CE 709 CE 705A UPPR RECOVERY



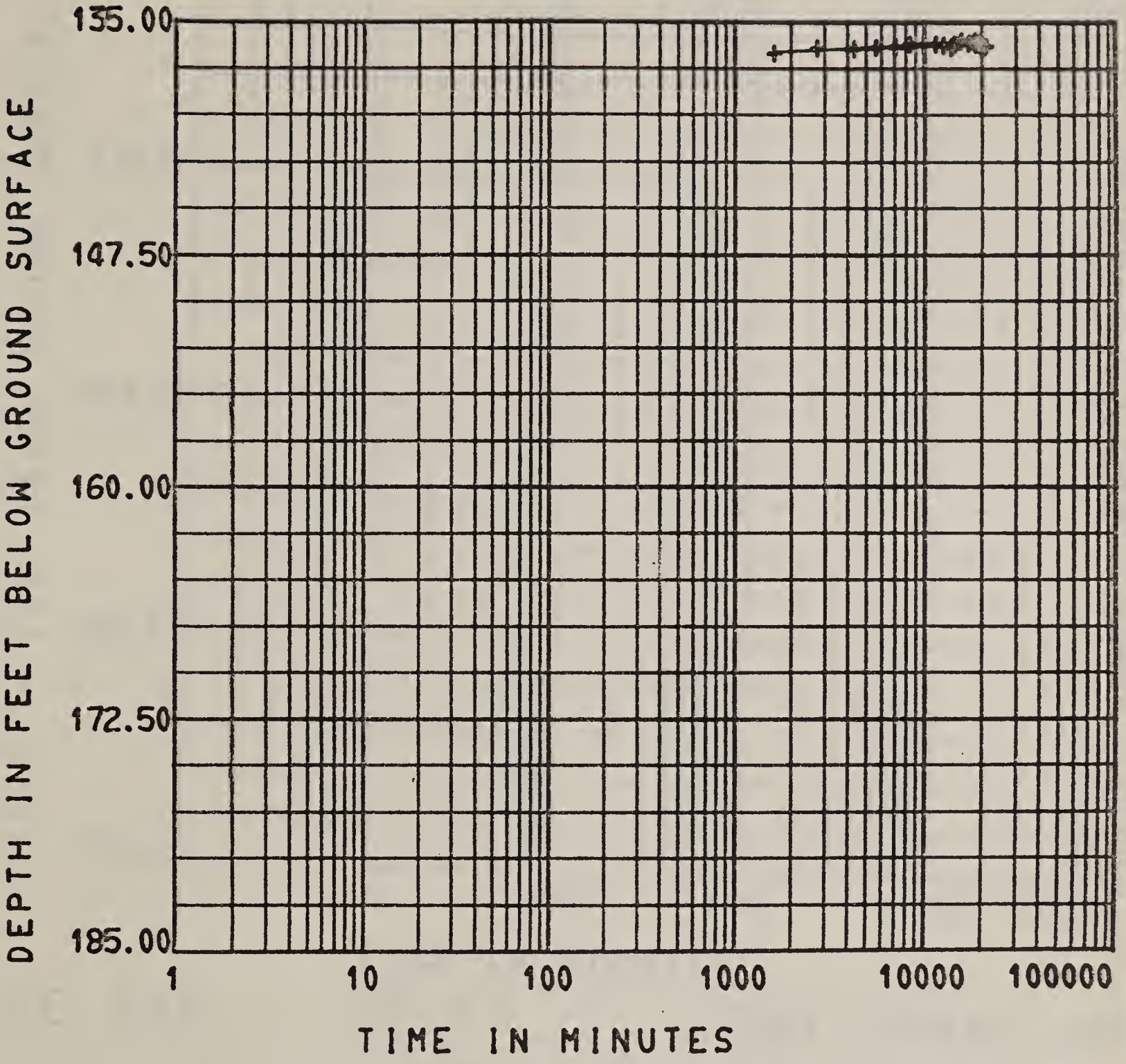
CE 709 CE 705A UPPR DRAWDOWN



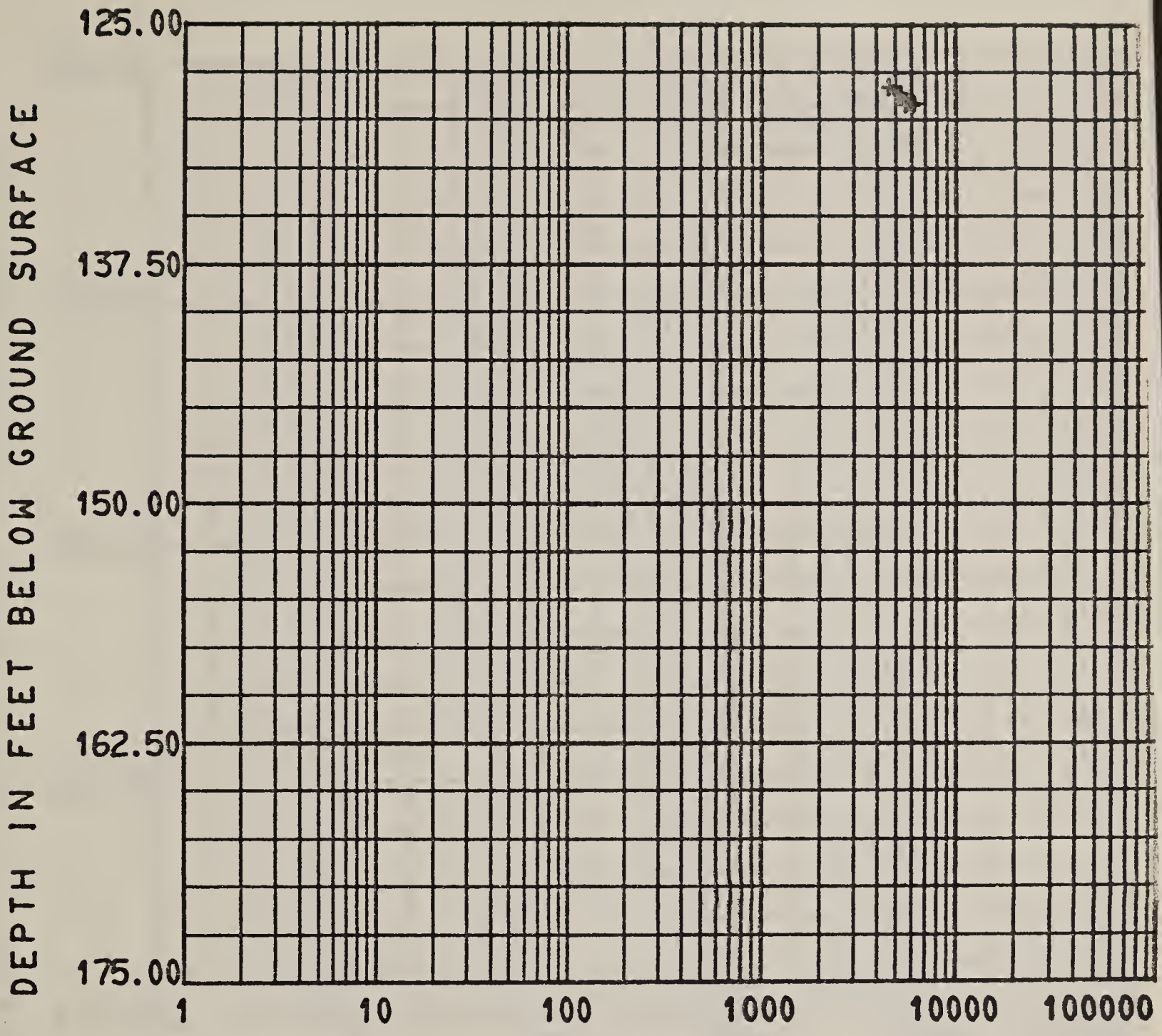
CE 709 CE 705A UPPR RECOVERY



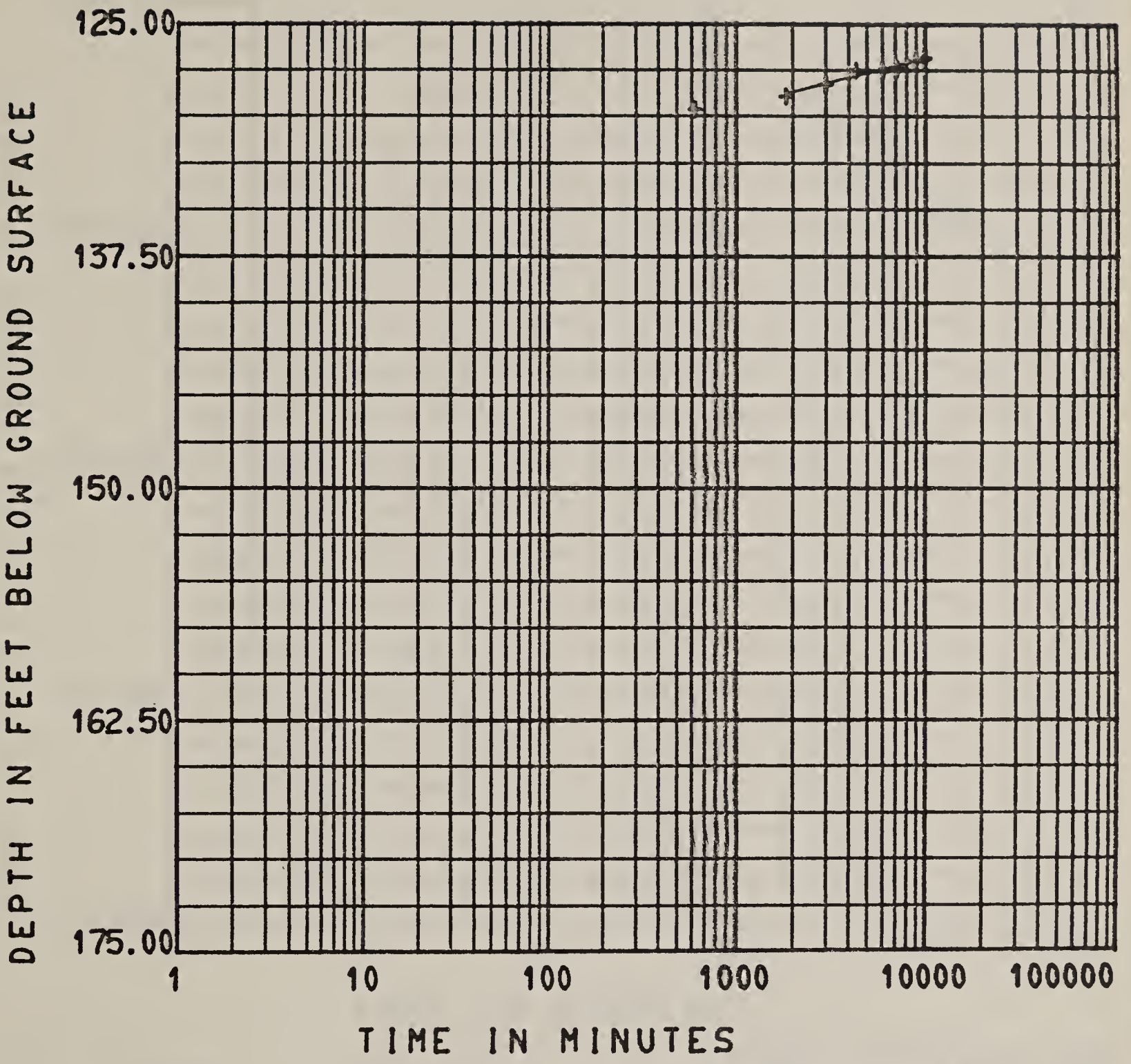
CE 709 GS-16 LOWR DRAWDOWN



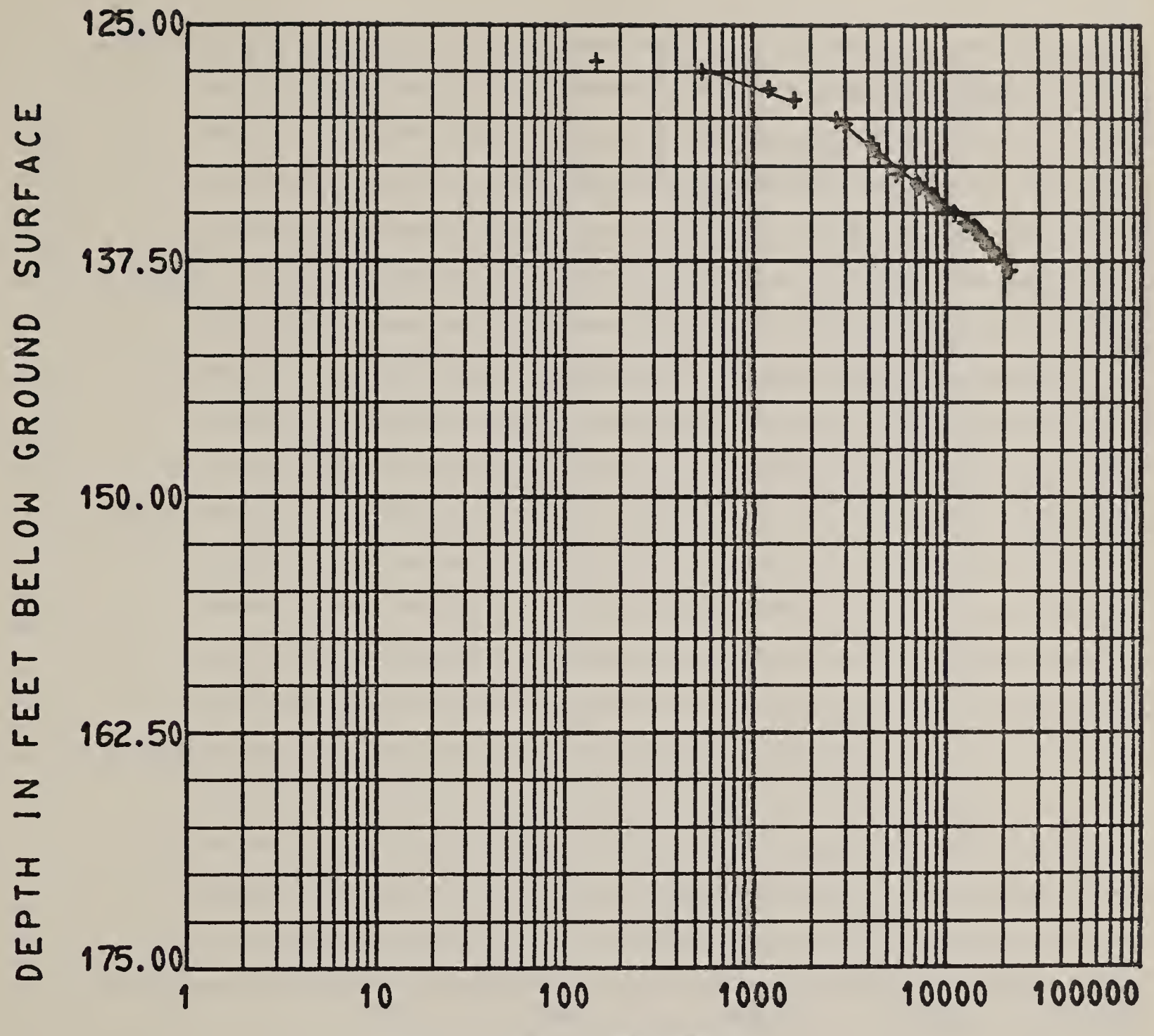
CE 709 GS-16 LOWR RECOVERY



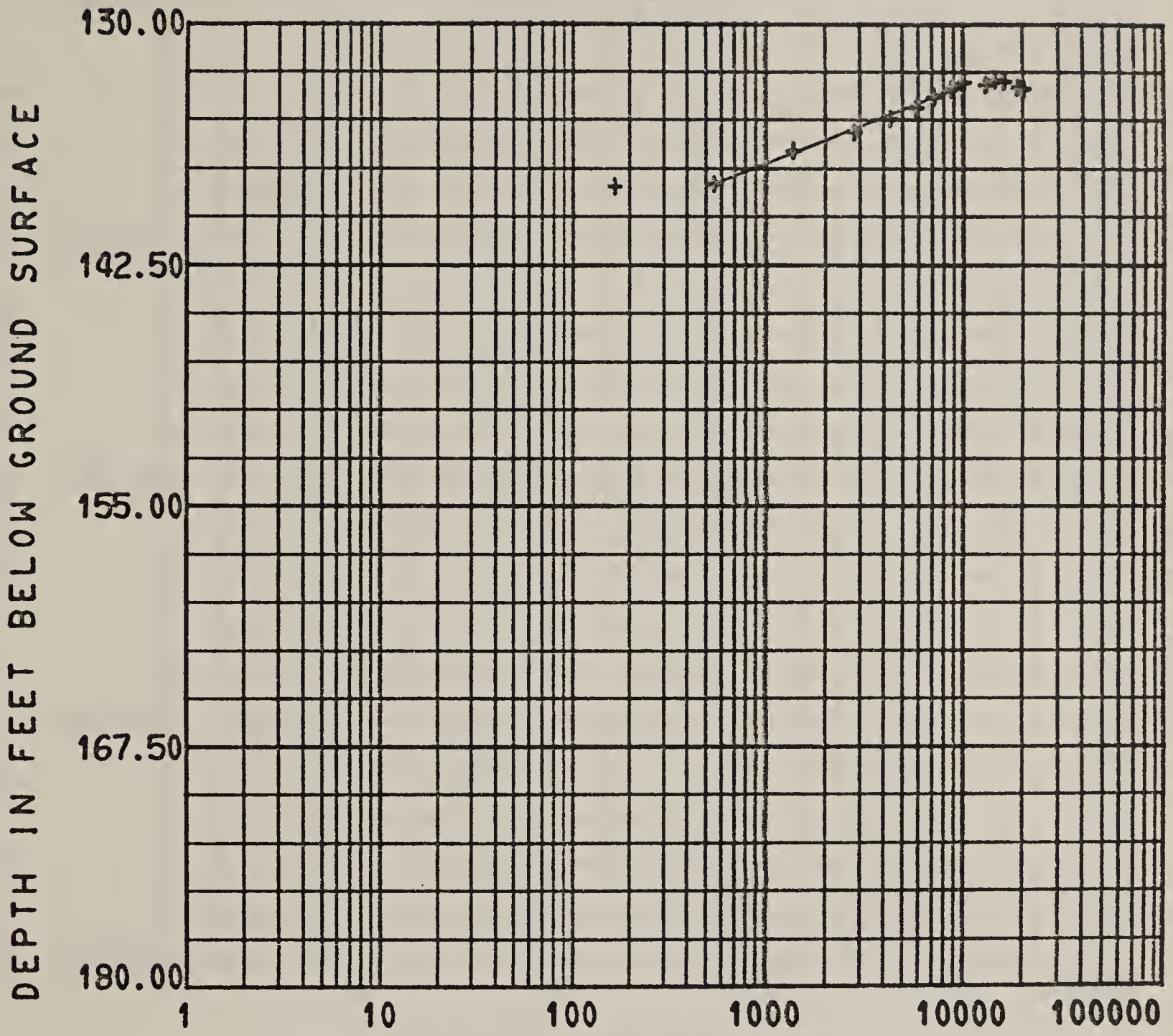
CE 709 GS-17 LOWR DRAWDOWN



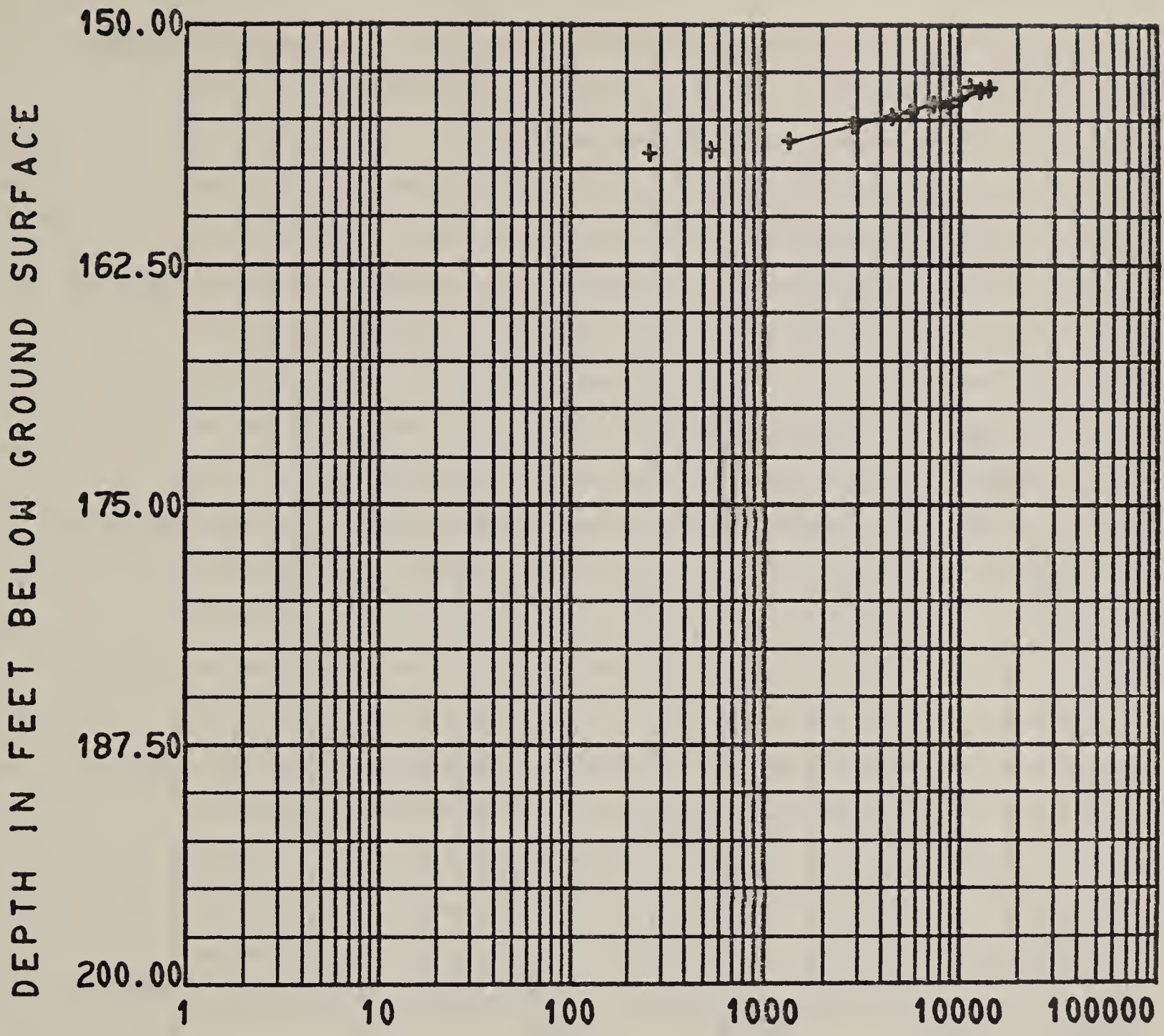
CE 709 GS-17 LOWR RECOVERY



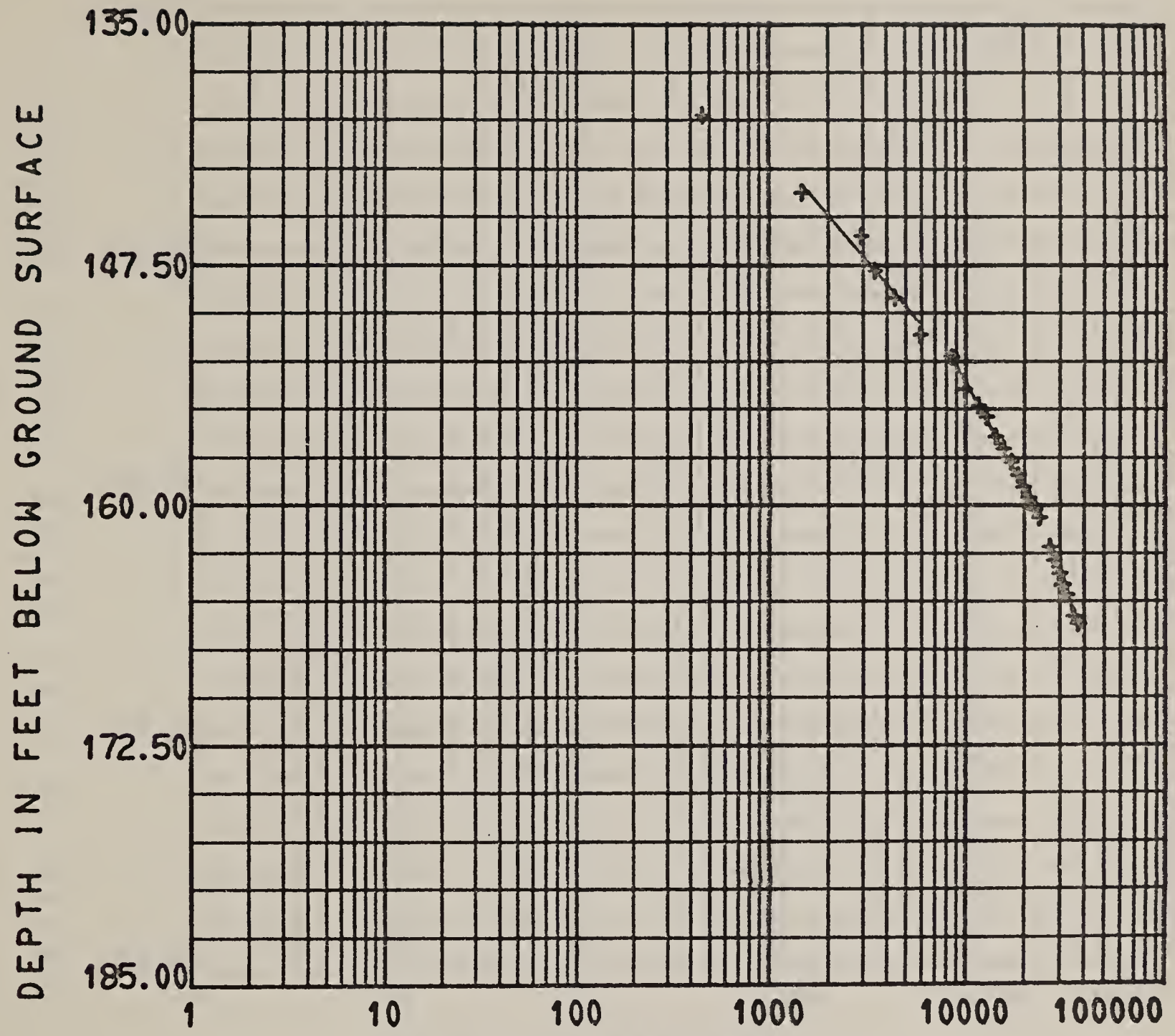
CE 709 GS-17 LOWR DRAWDOWN



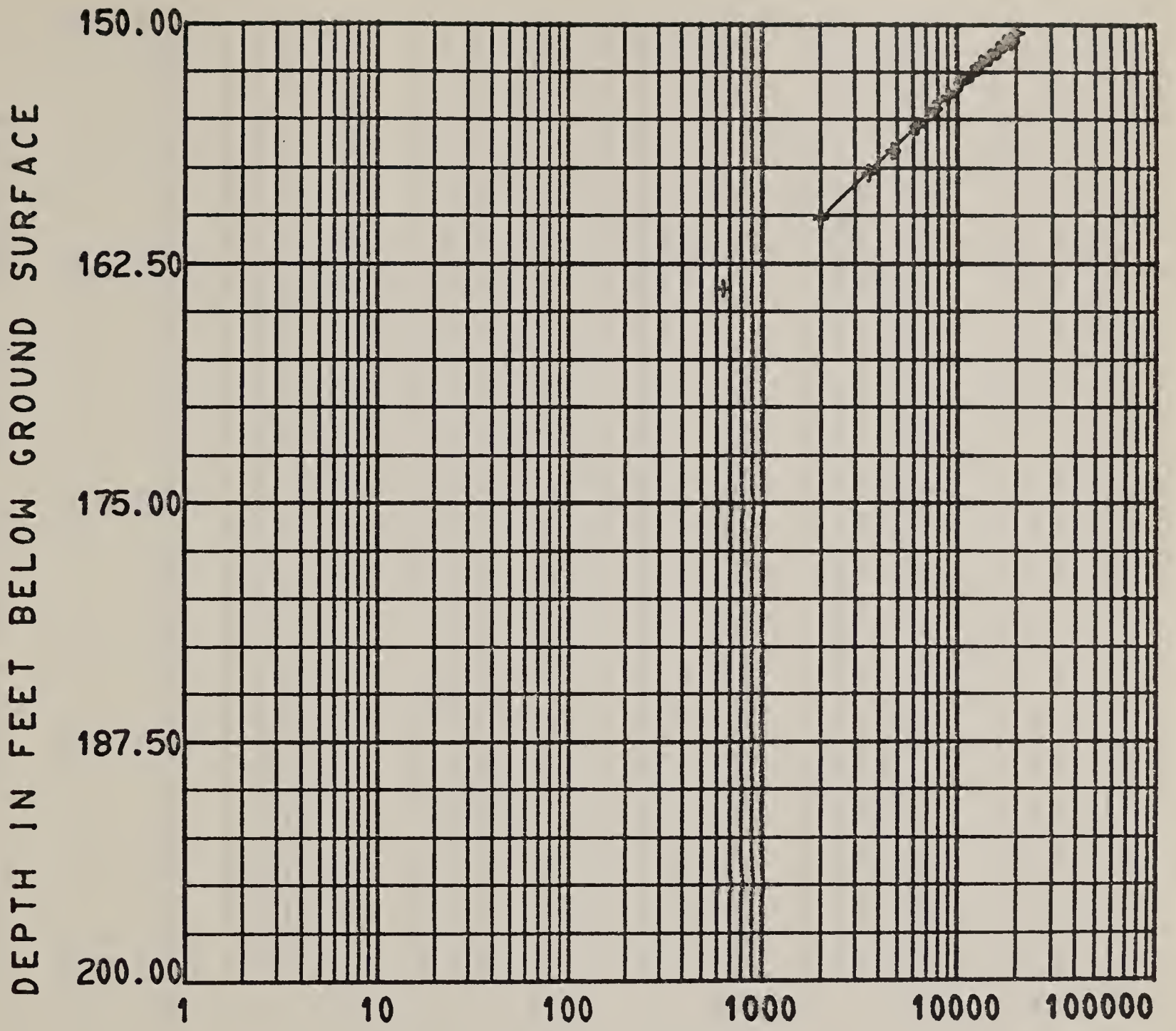
CE 709 GS-17 LOWR RECOVERY



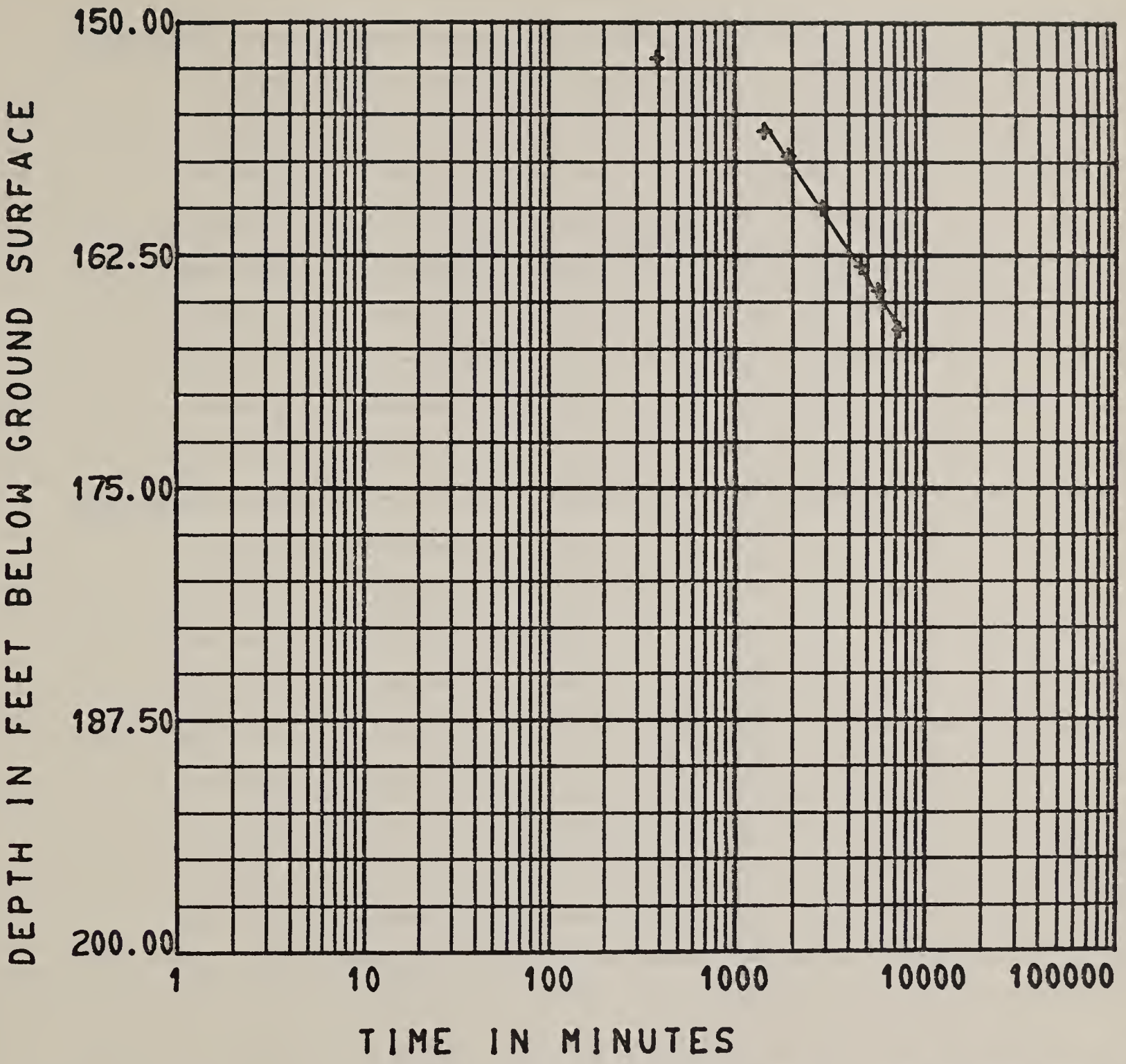
CE 709 GS-18 LOWR RECOVERY



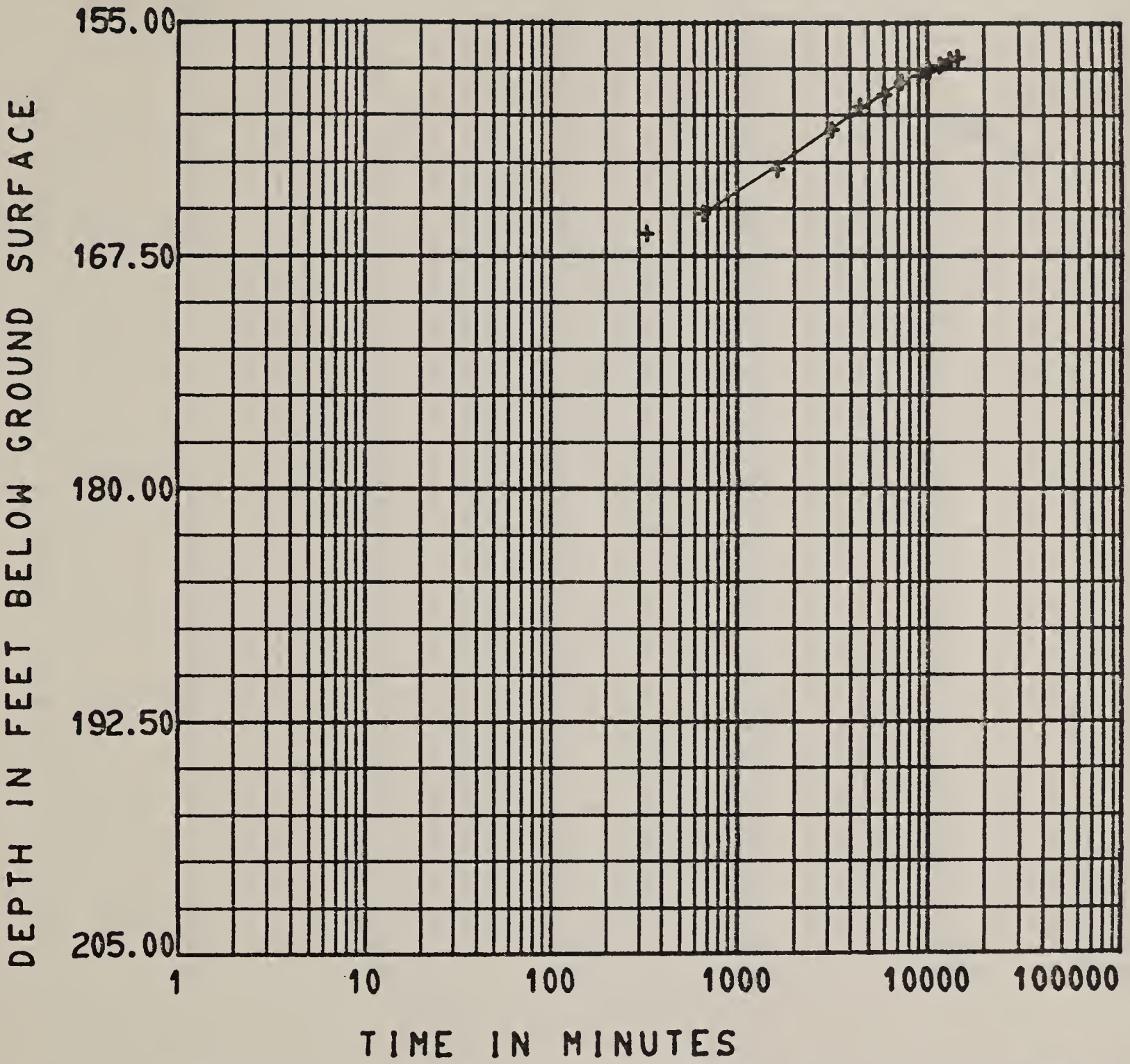
CE 709 GS-19 LOWR DRAWDOWN



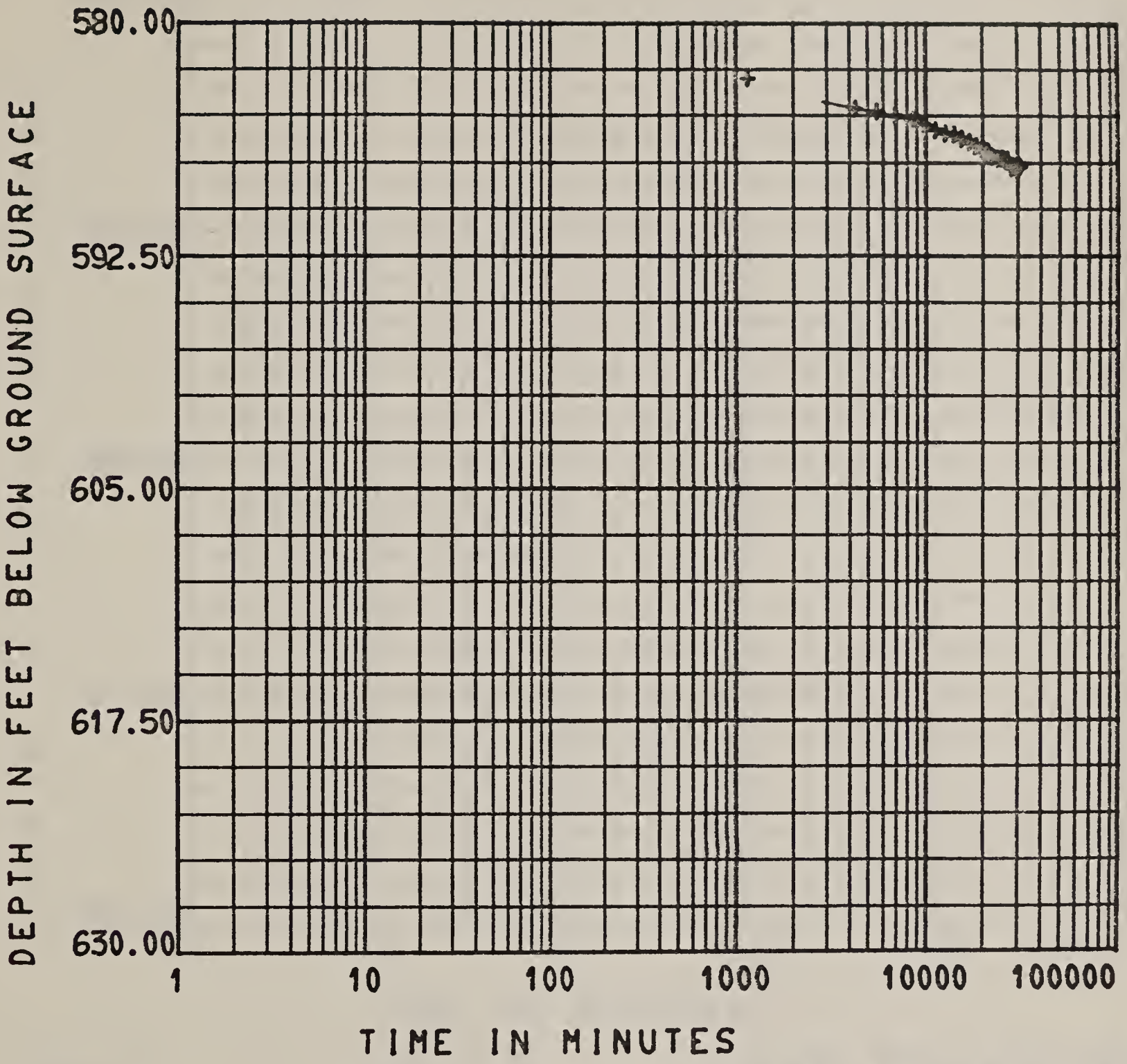
CE 709 GS-19 LOWR RECOVERY

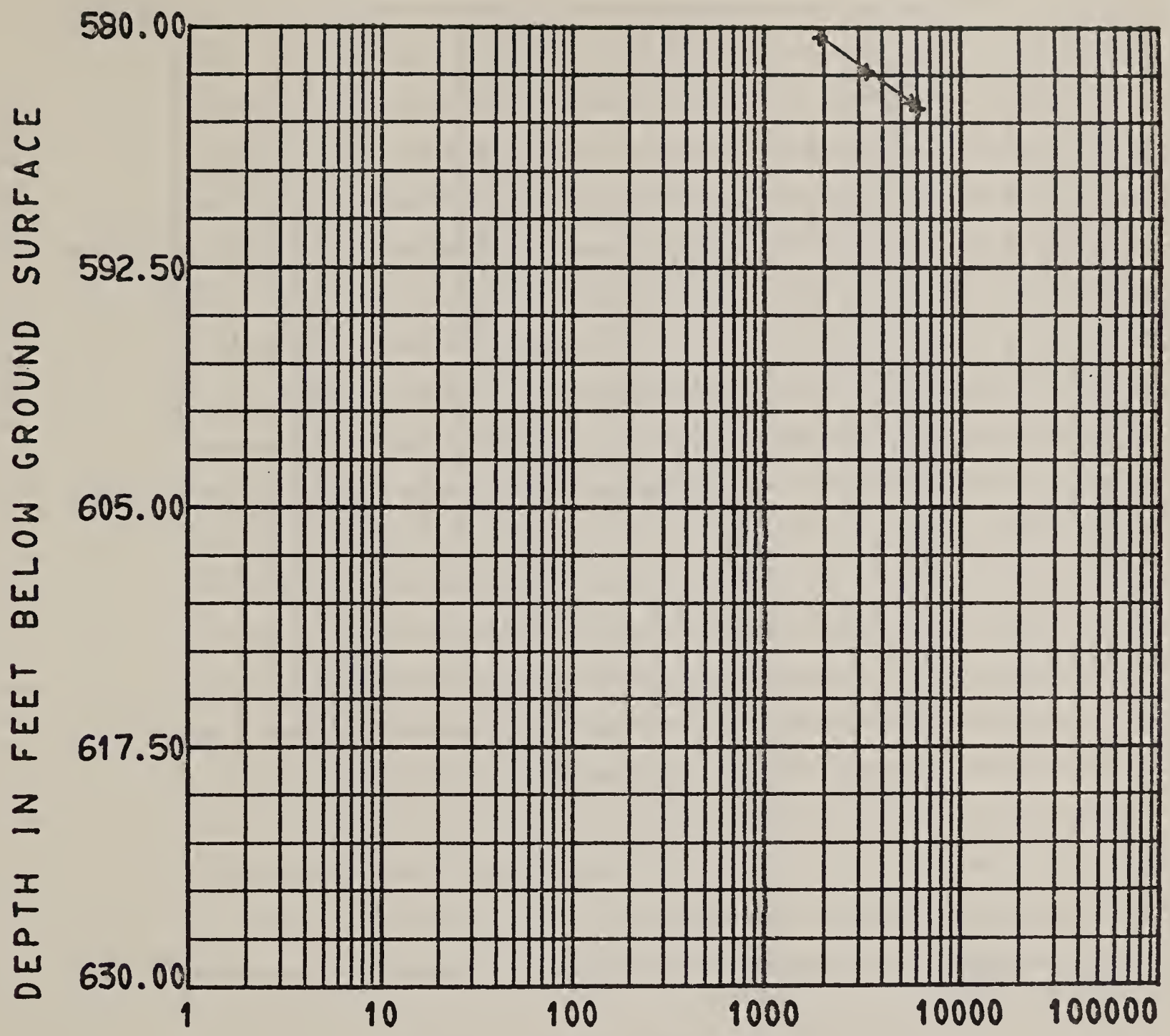


CE 709 GS-19 LOWR DRAWDOWN

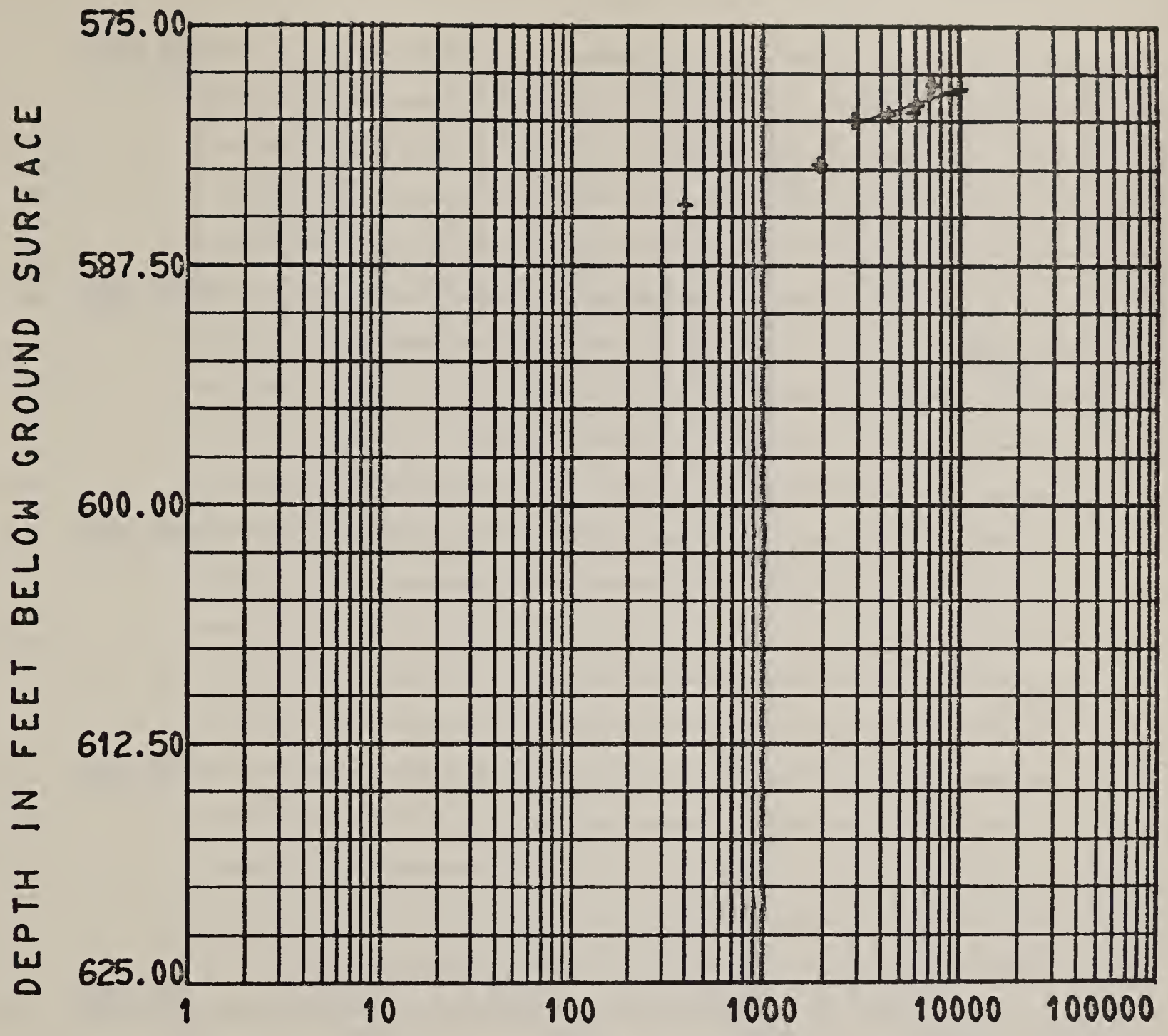


CE 709 GS-19 LOWR RECOVERY

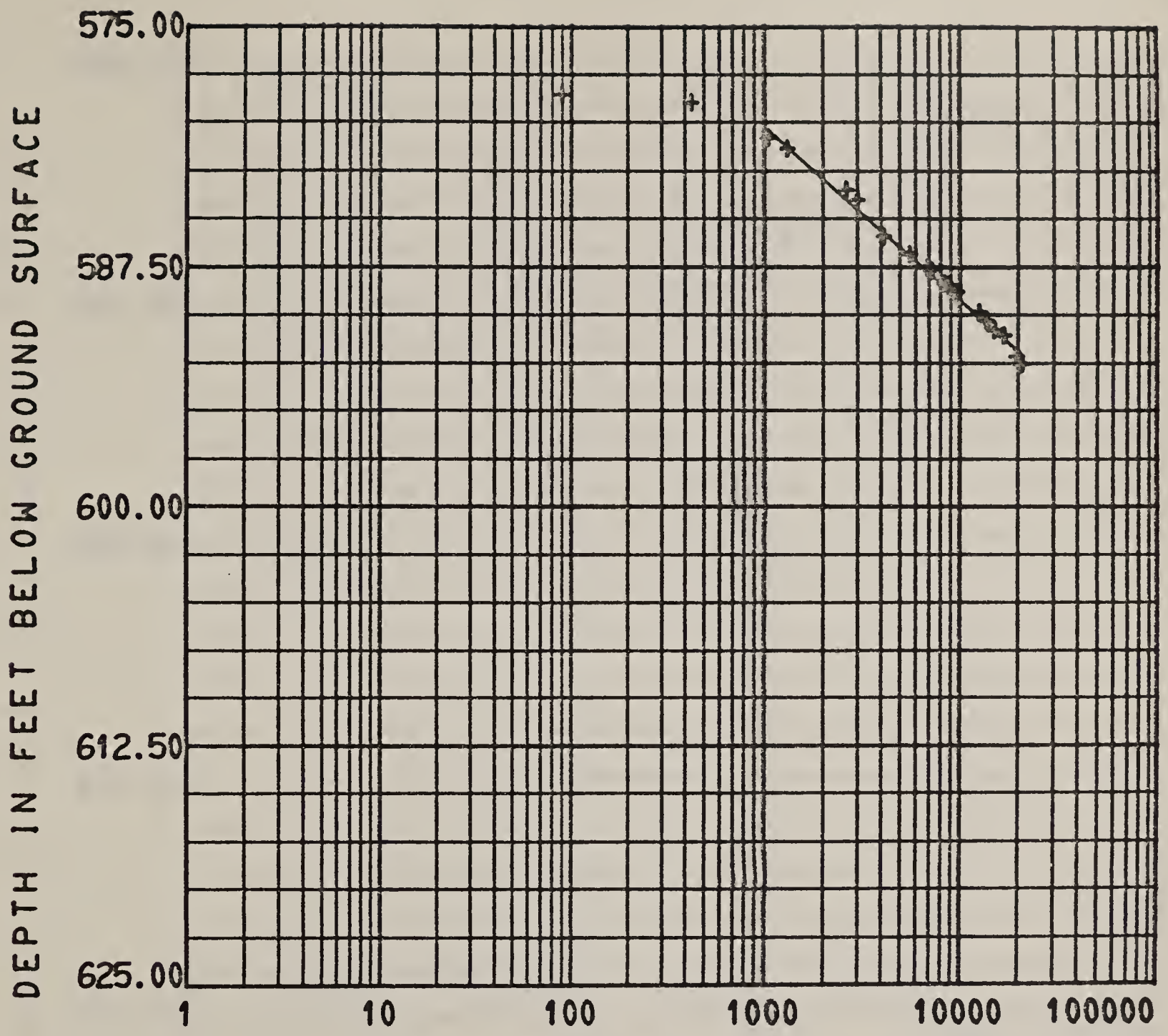

580.00
592.50
605.00
617.50
630.00
DEPTH IN FEET BELOW GROUND SURFACE
1
10
100
1000
10000
100000
TIME IN MINUTES
GS-1
GS-16
LOWR DRAWDOWN



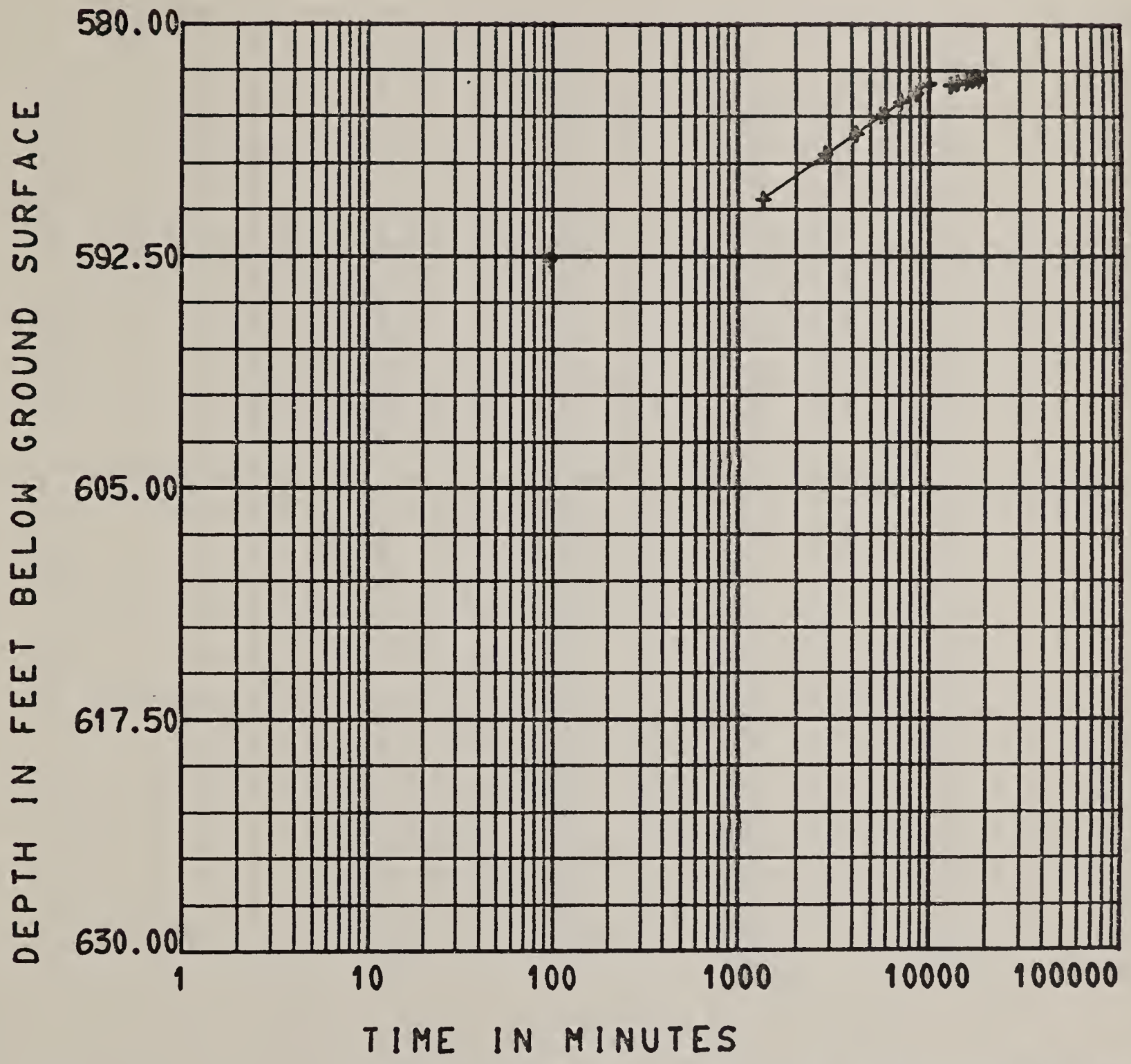
GS-1 GS-17 LOWR DRAWDOWN



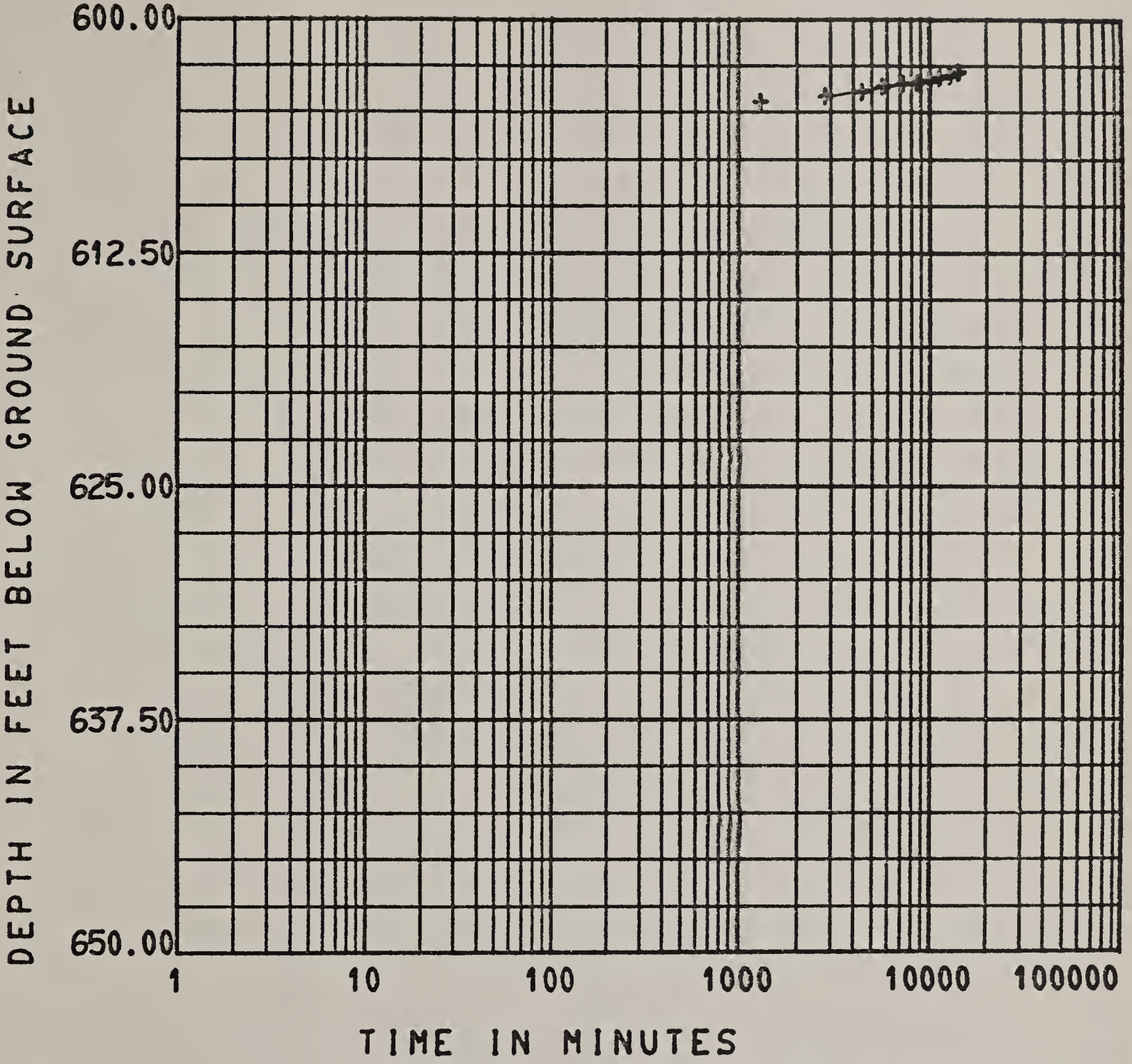
GS-1 GS-17 LOWR RECOVERY



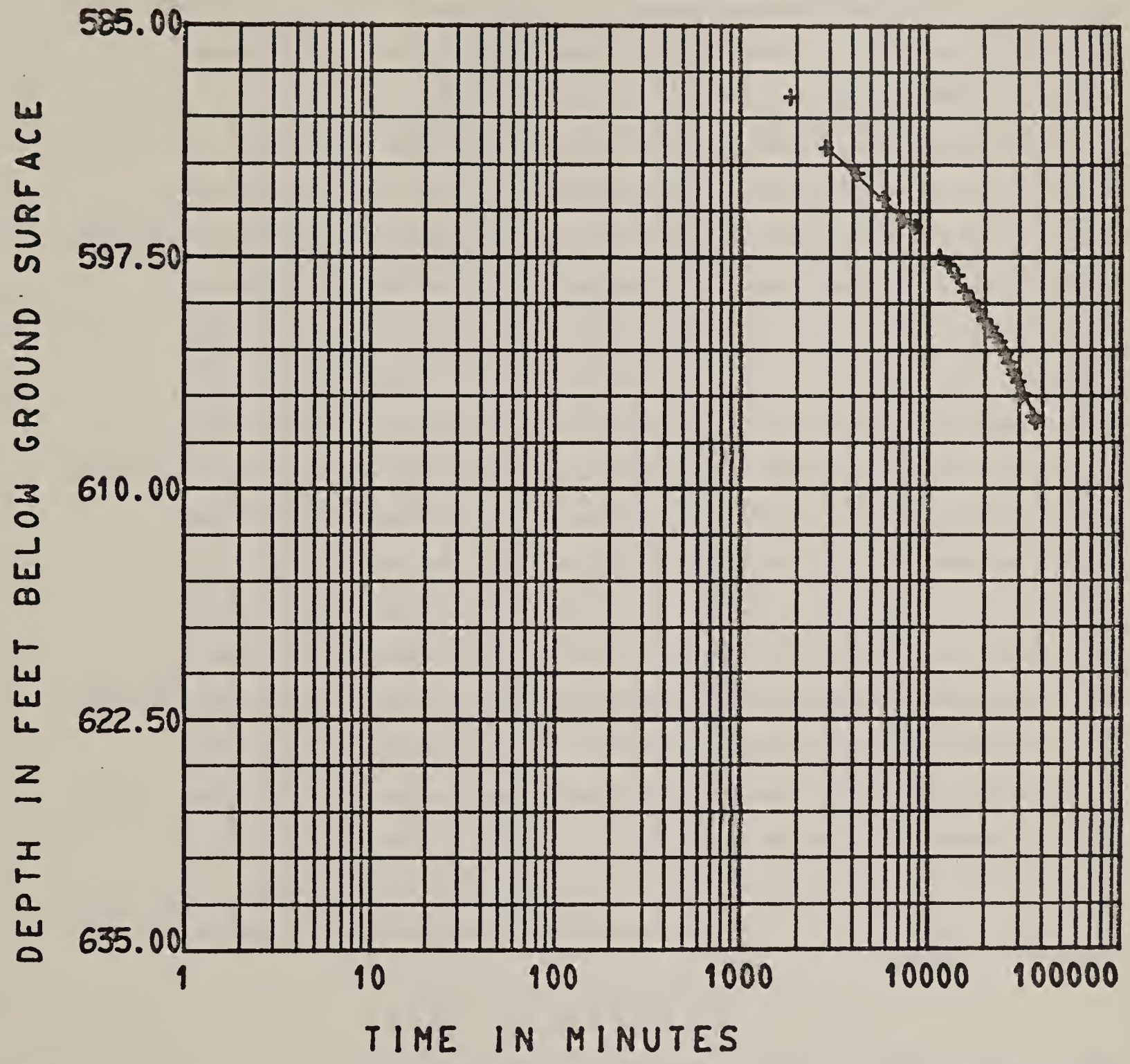
GS-1 GS-17 LOWR DRAWDOWN



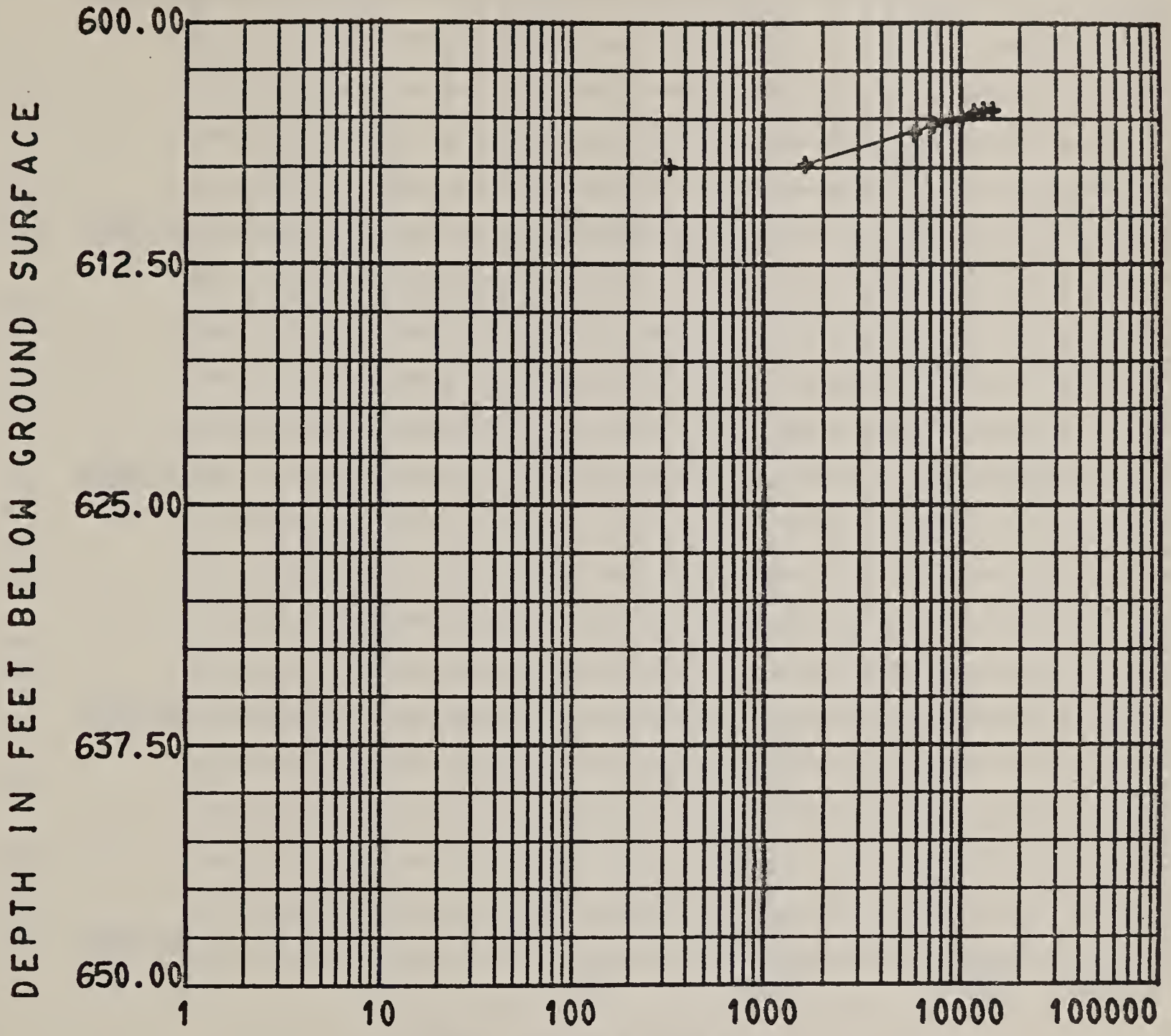
GS-1 GS-17 LOWR RECOVERY



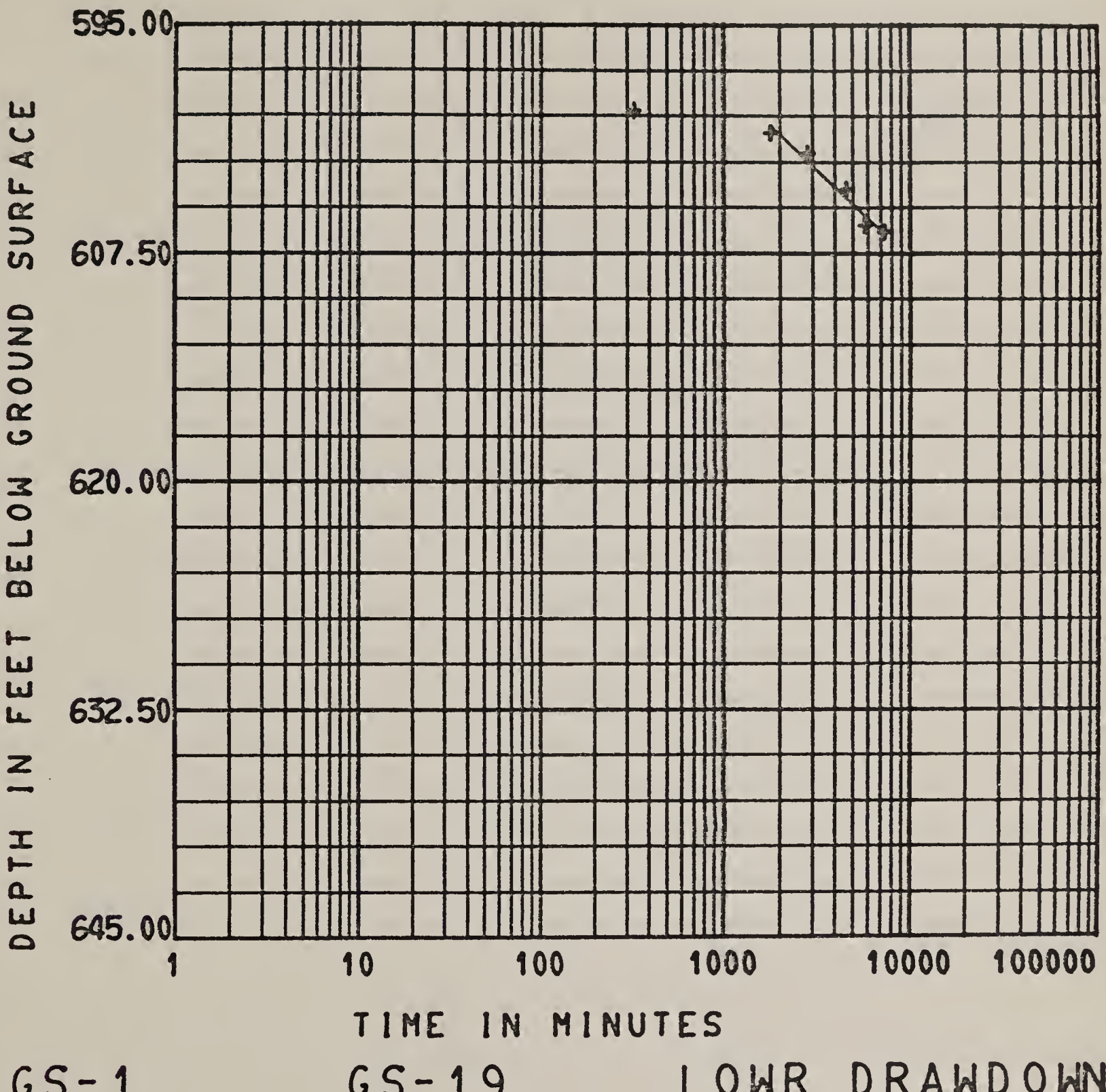
GS-1 GS-18 LOWR RECOVERY

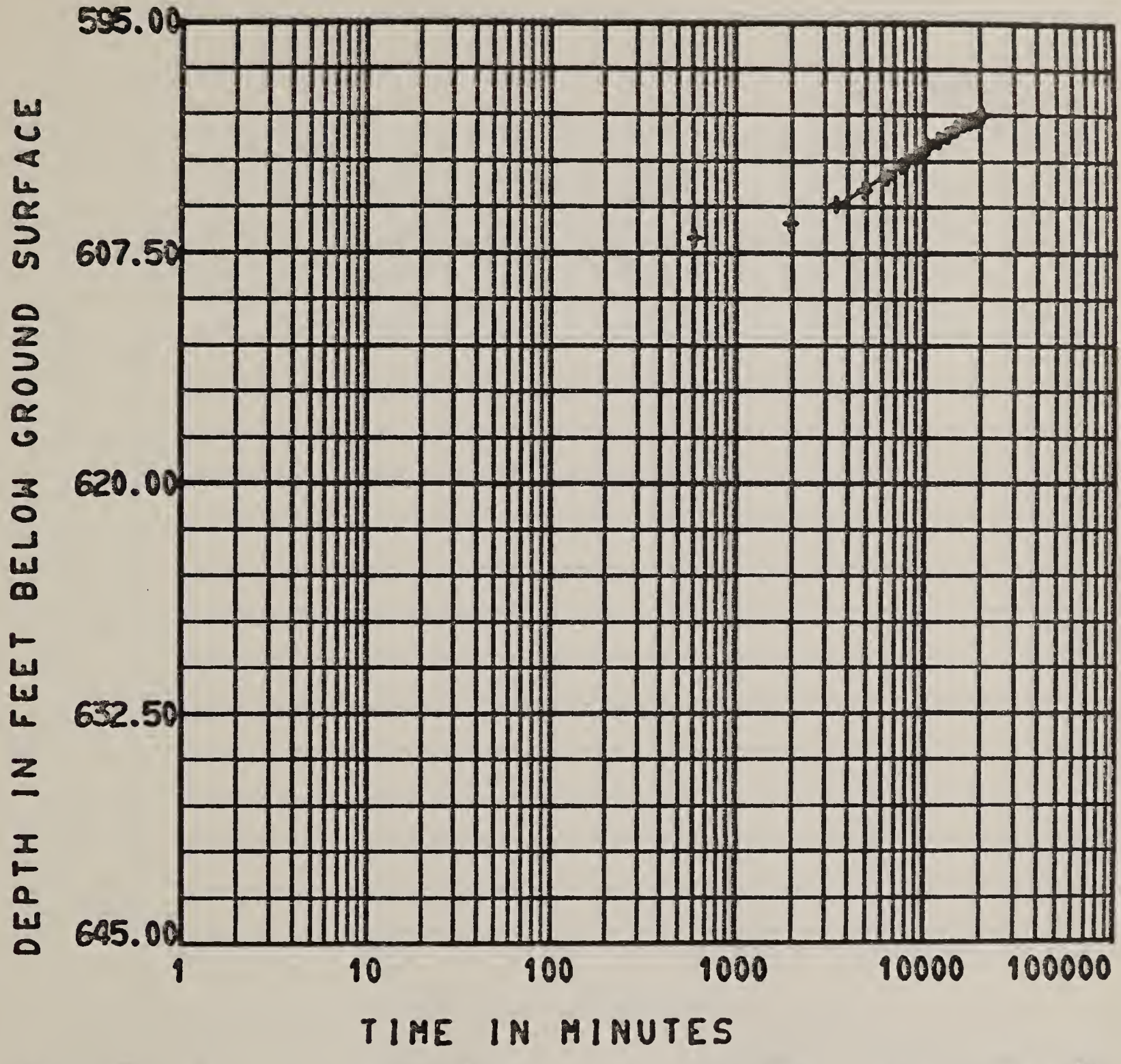


GS-1 GS-19 LOWR DRAWDOWN

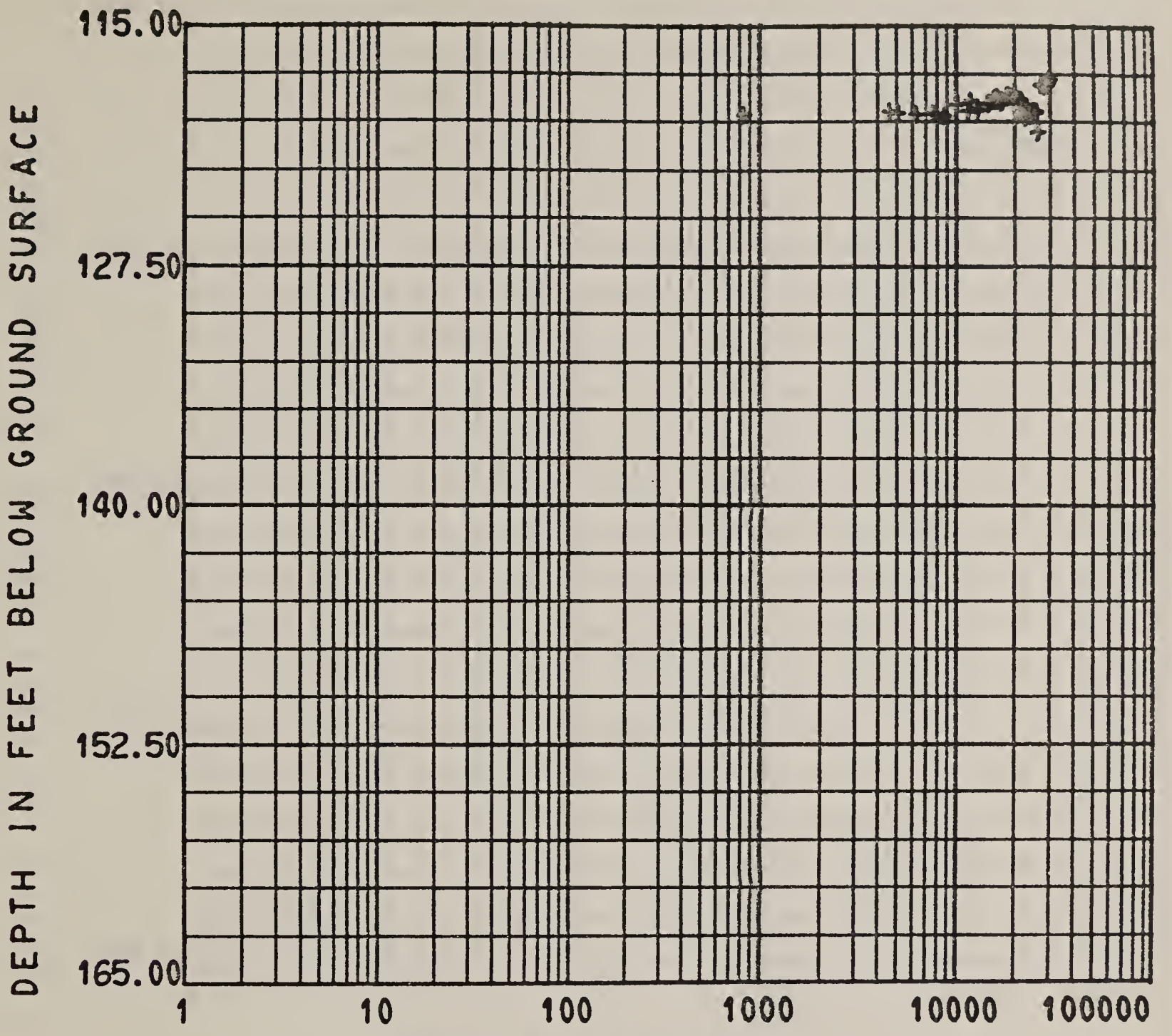


GS-1 GS-19 LOWR RECOVERY

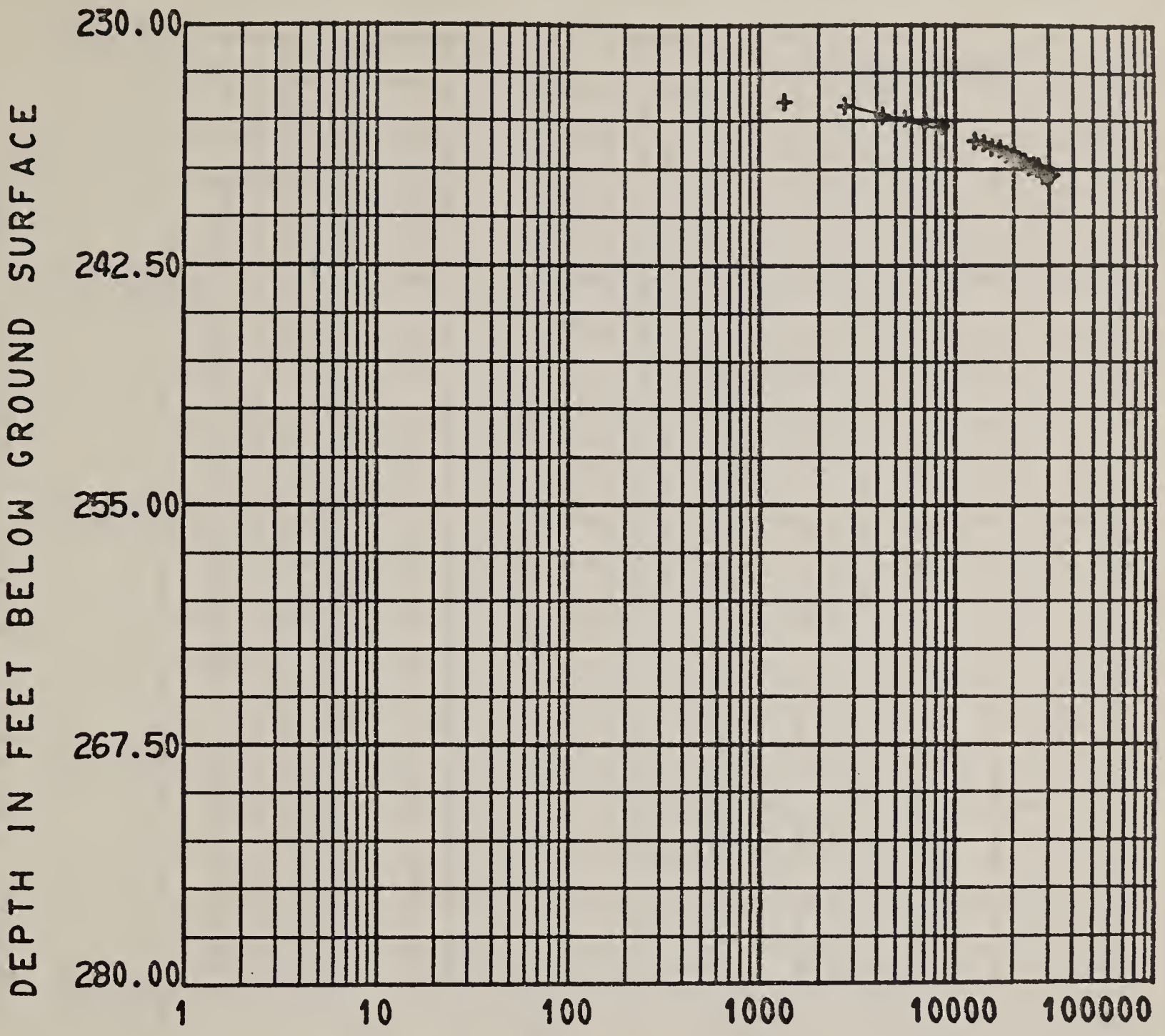

595.00
607.50
620.00
632.50
645.00
DEPTH IN FEET BELOW GROUND SURFACE
1
10
100
1000
10000
100000
TIME IN MINUTES
GS-1
GS-19
LOWR DRAWDOWN



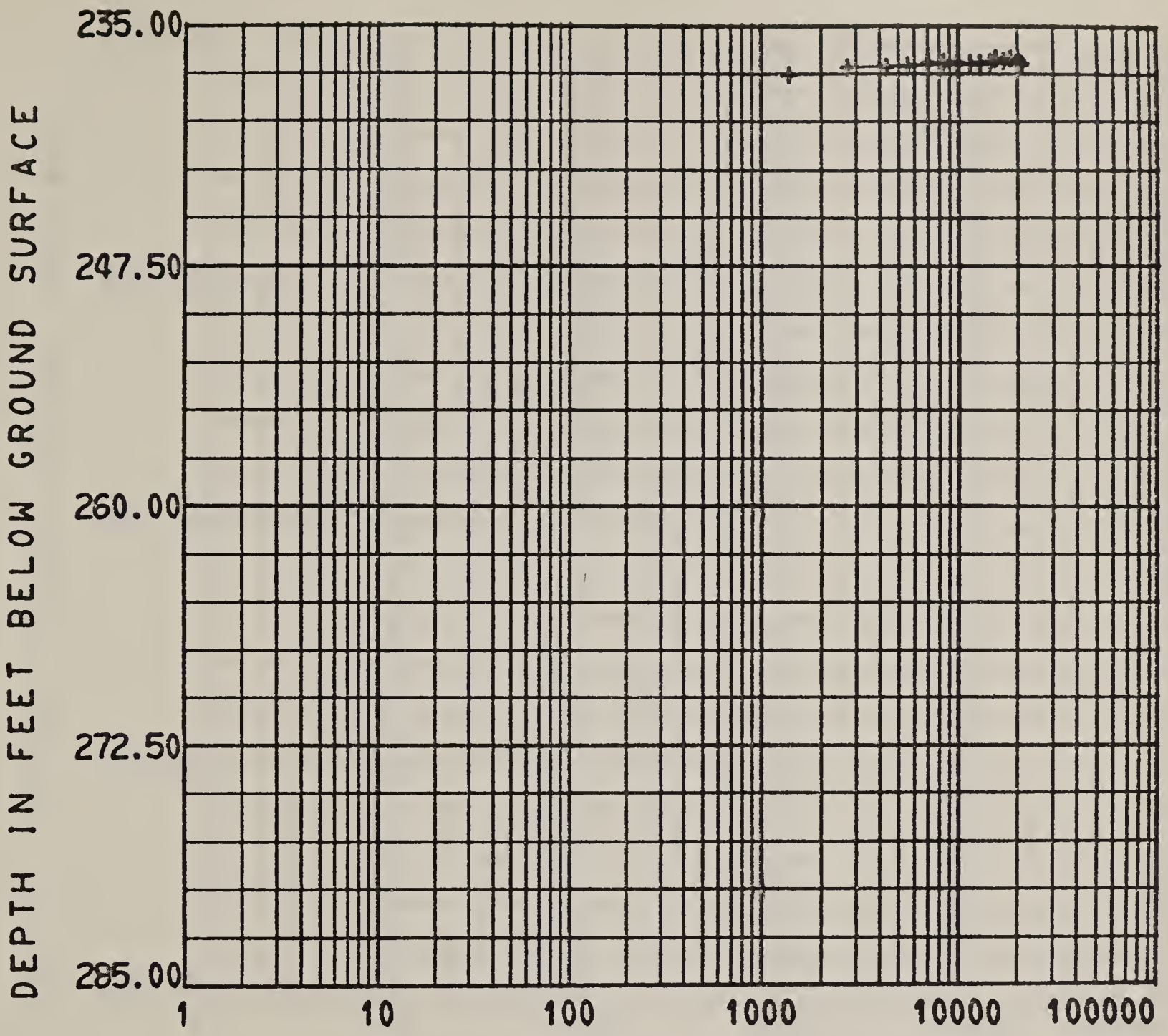
GS-1 GS-19 LOWR RECOVERY



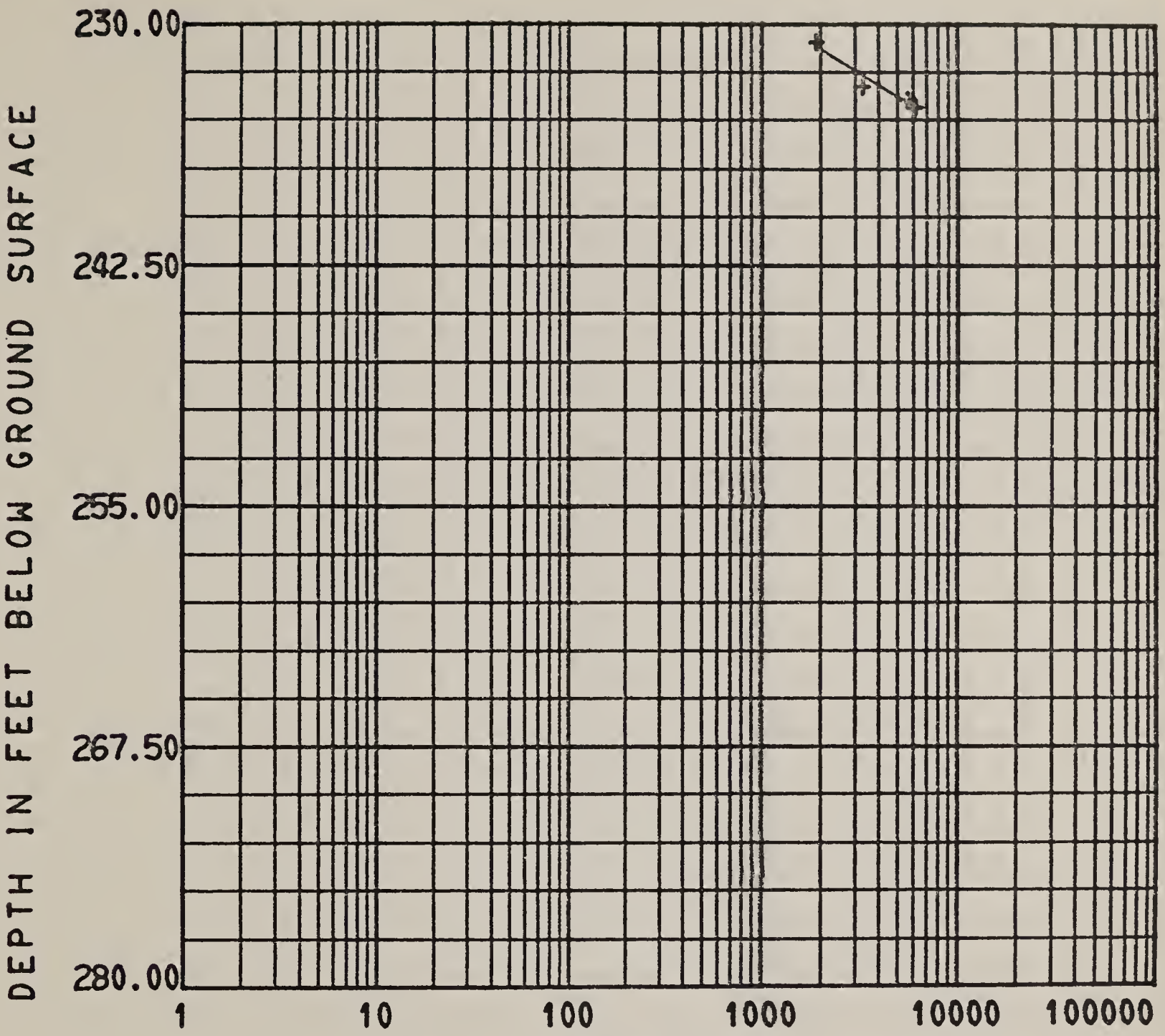
GS-2-3 TO-3 UPPR DRAWDOWN



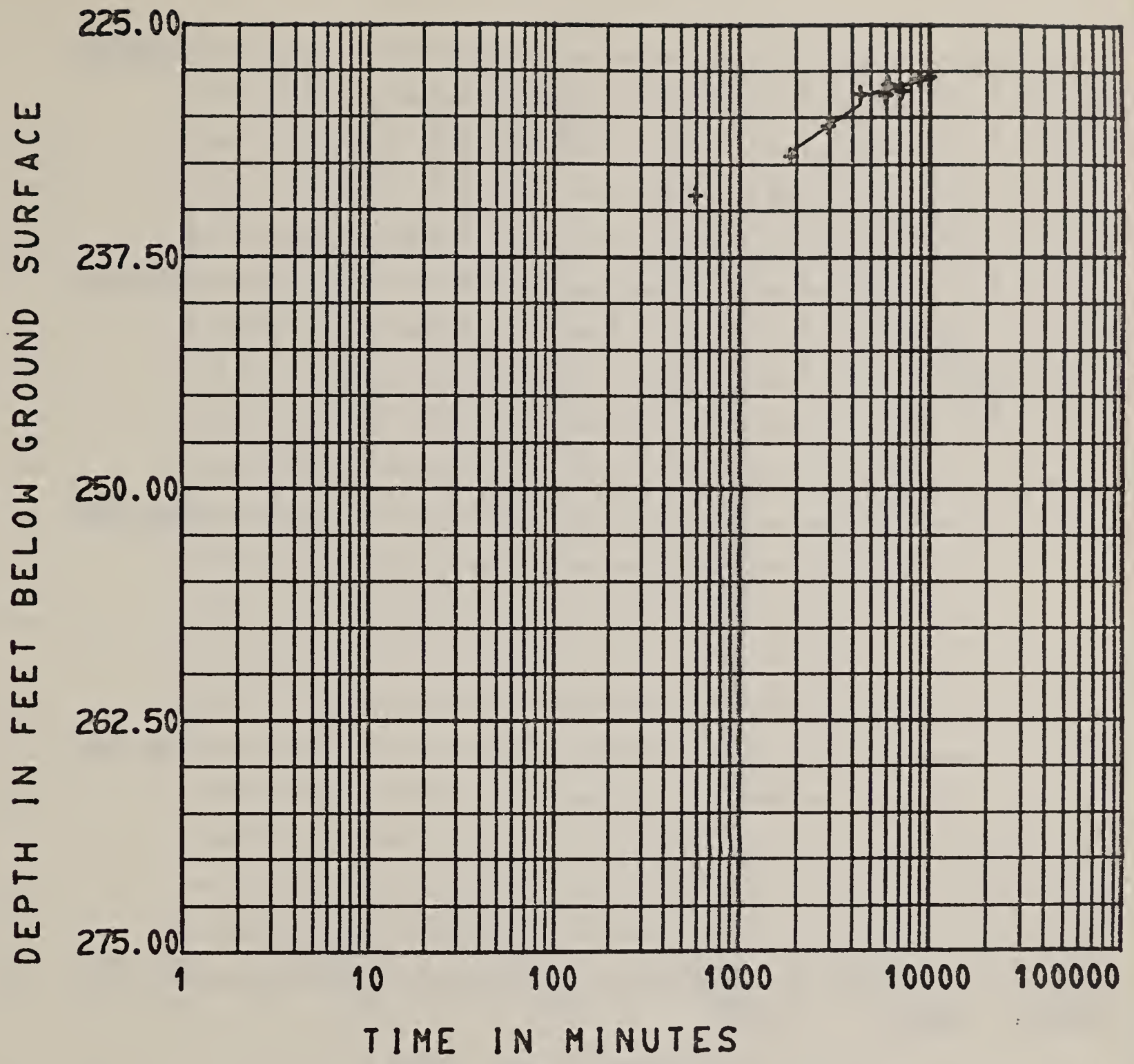
GS-2-3 GS-16 LOWR DRAWDOWN



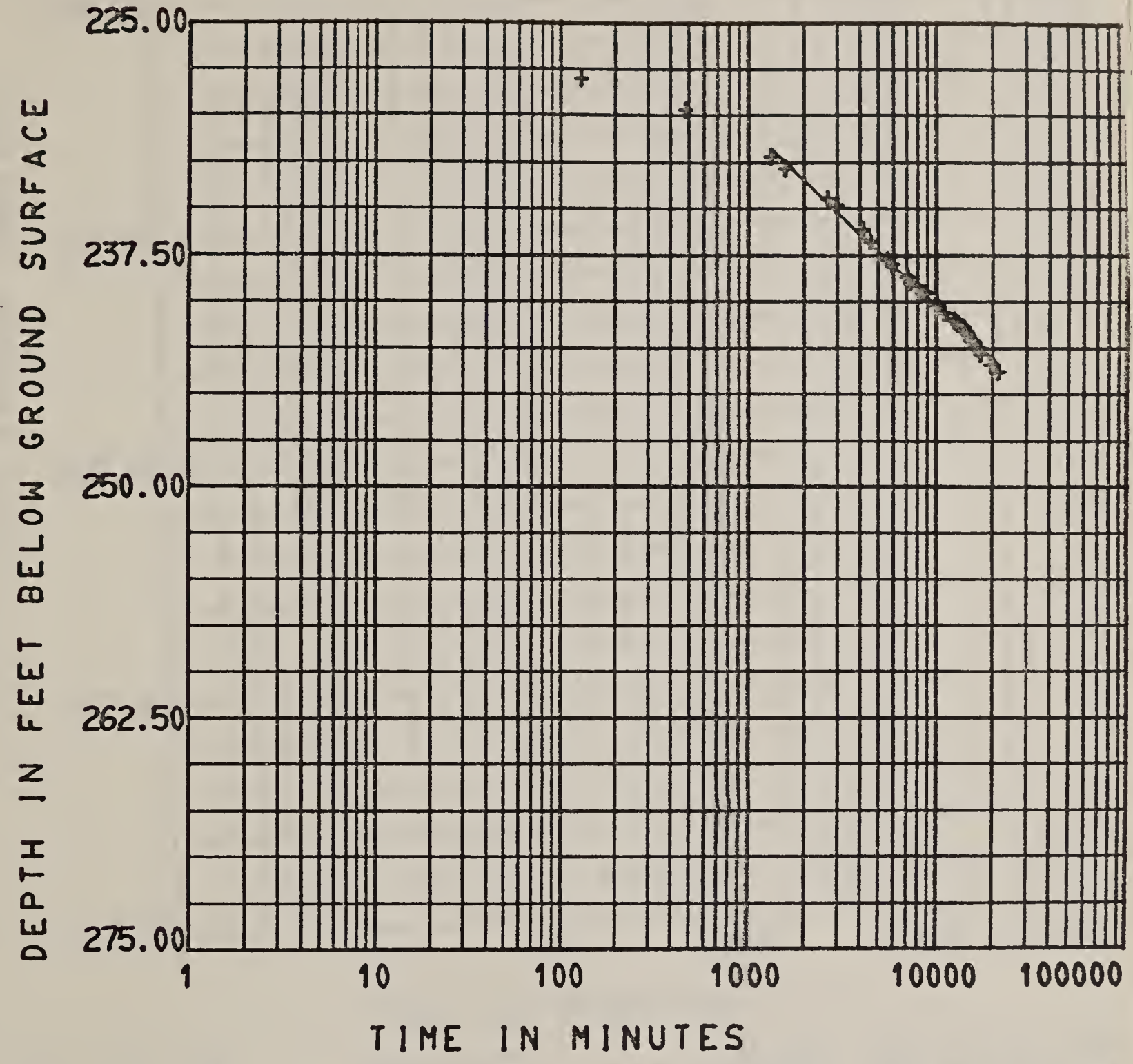
GS-2-3 GS-16 LOWR RECOVERY



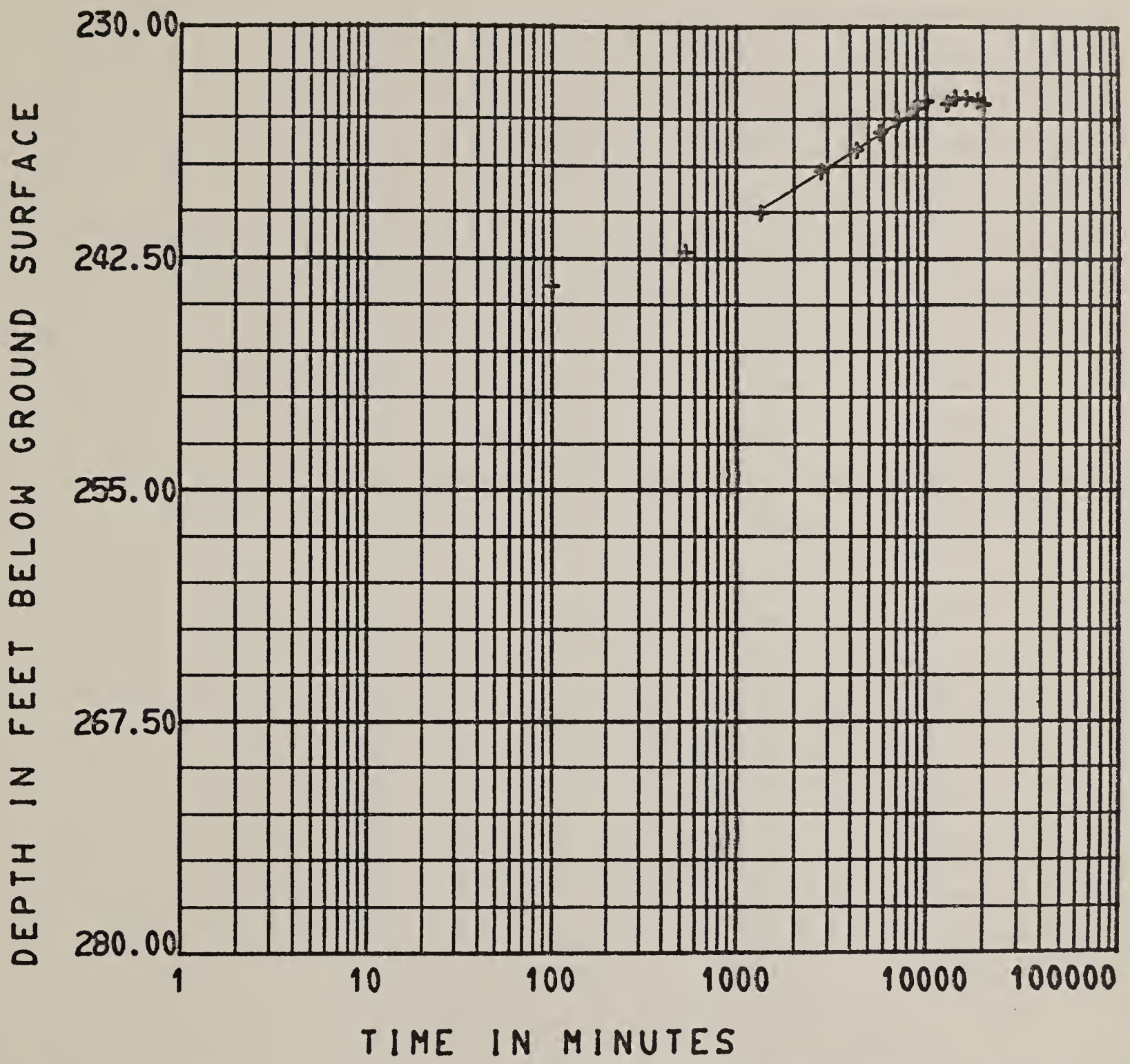
GS-2-3 GS-17 LOWR DRAWDOWN



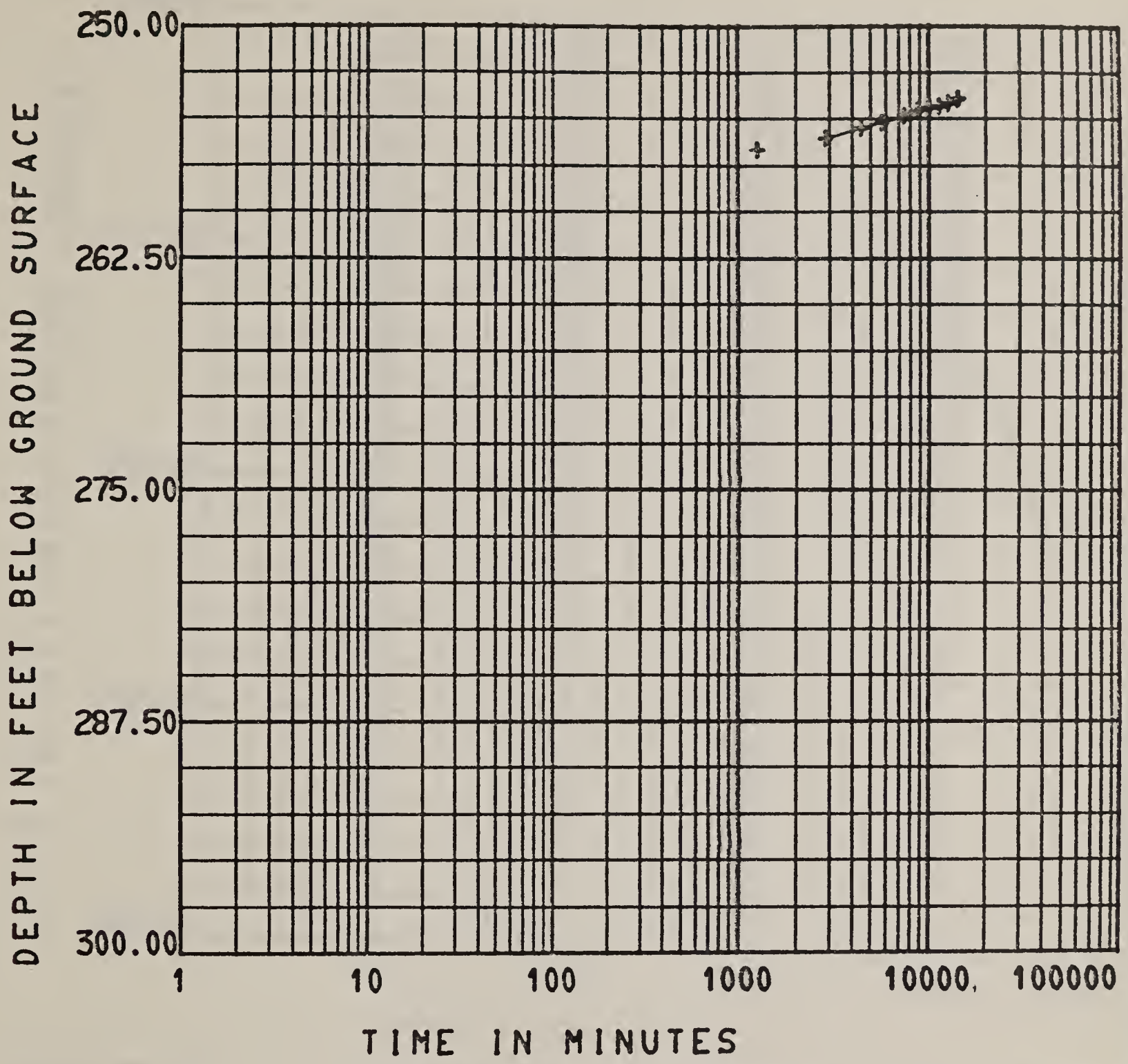
GS-2-3 GS-17 LOWR RECOVERY



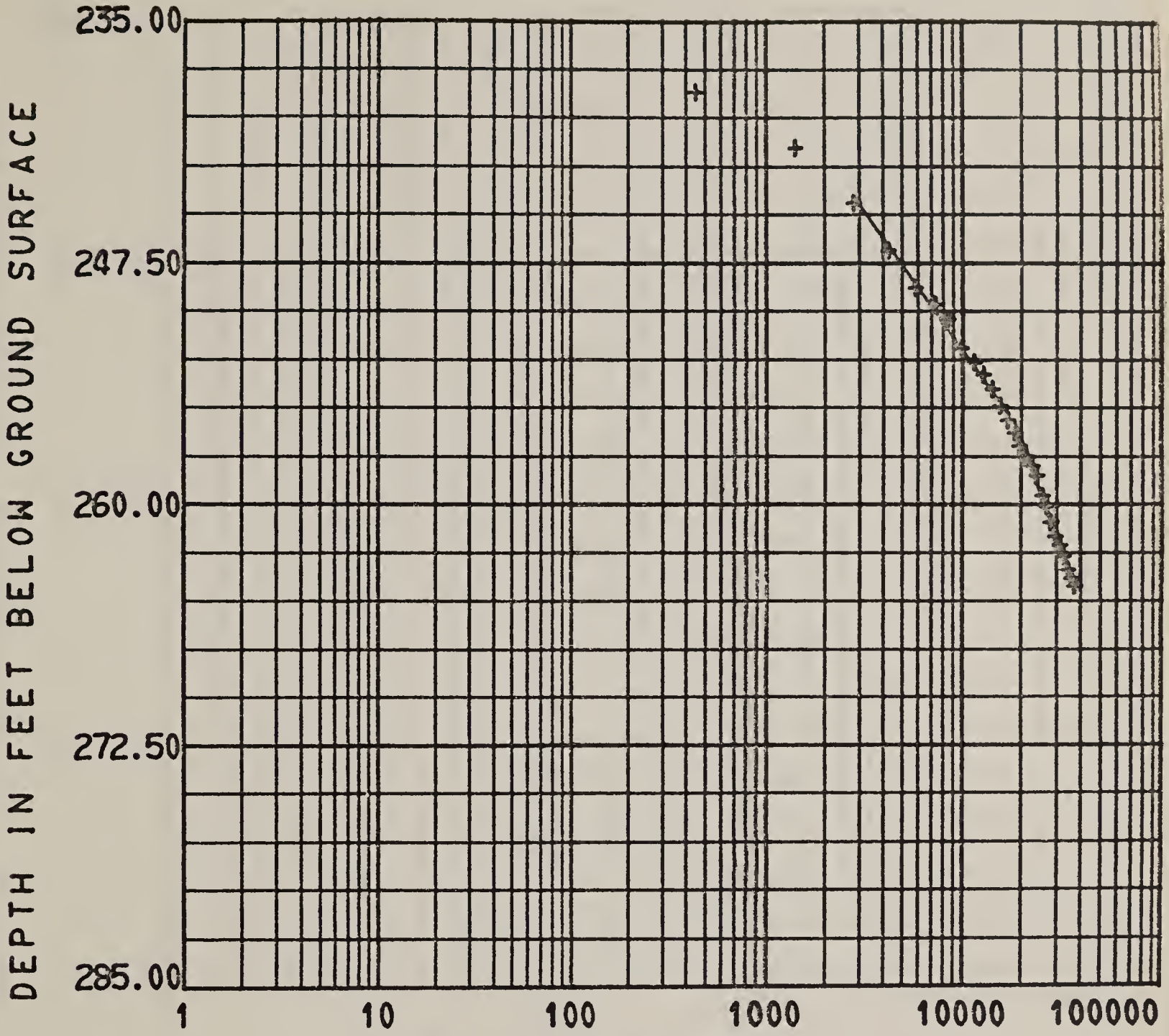
GS-2-3 GS-17 LOWR DRAWDOWN



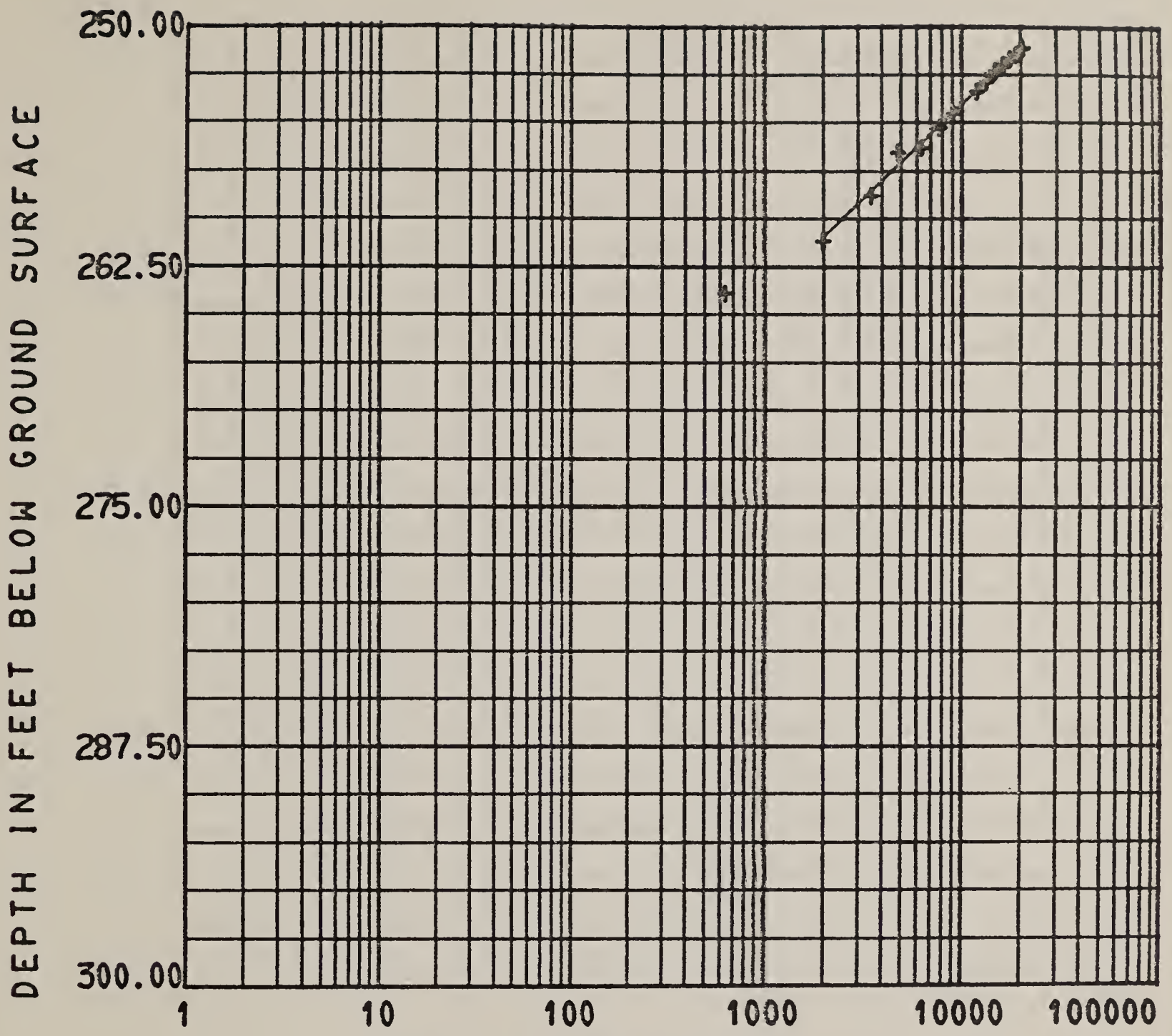
GS-2-3 GS-17 LOWR RECOVERY



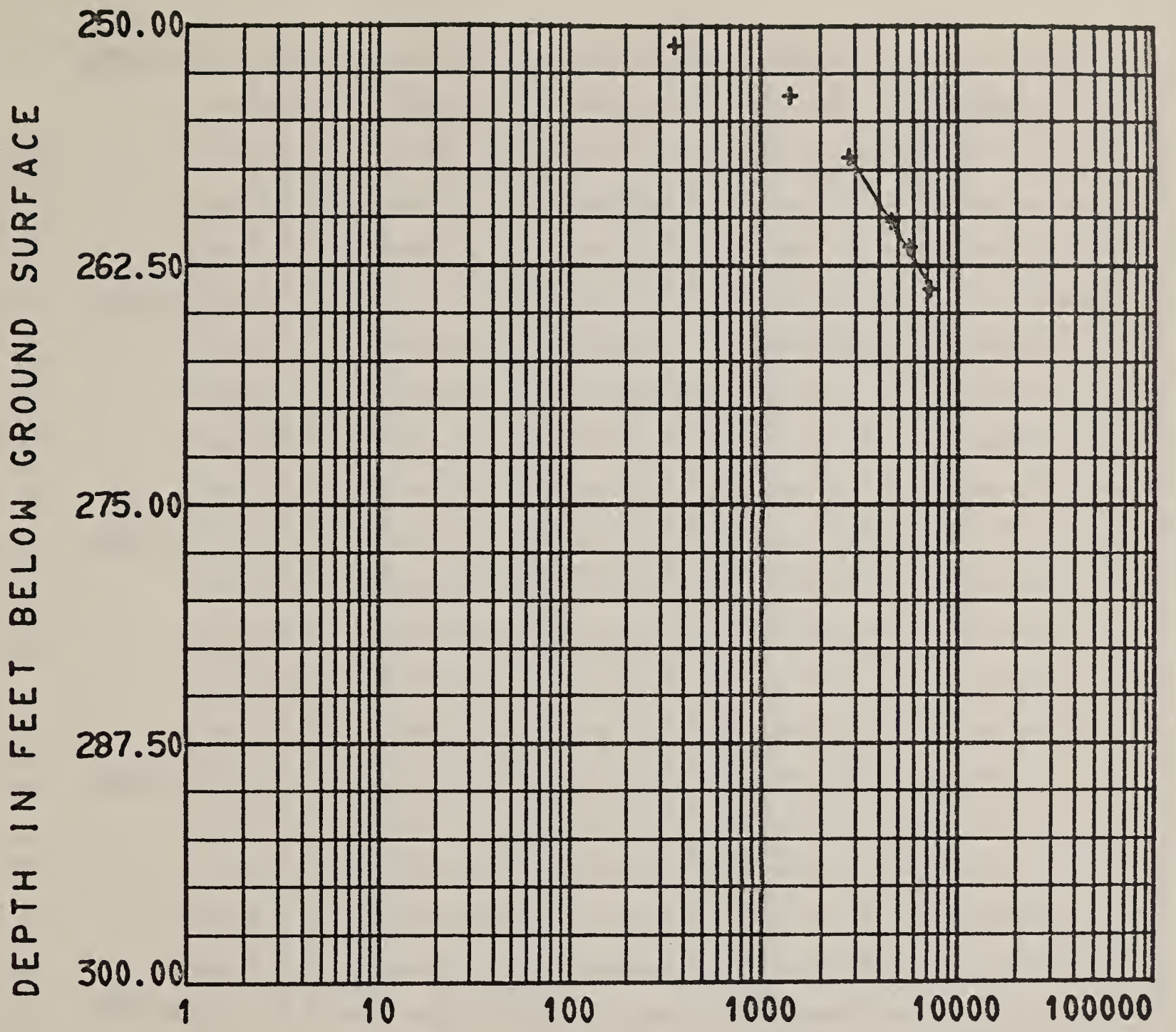
GS-2-3 GS-18 LOWR RECOVERY



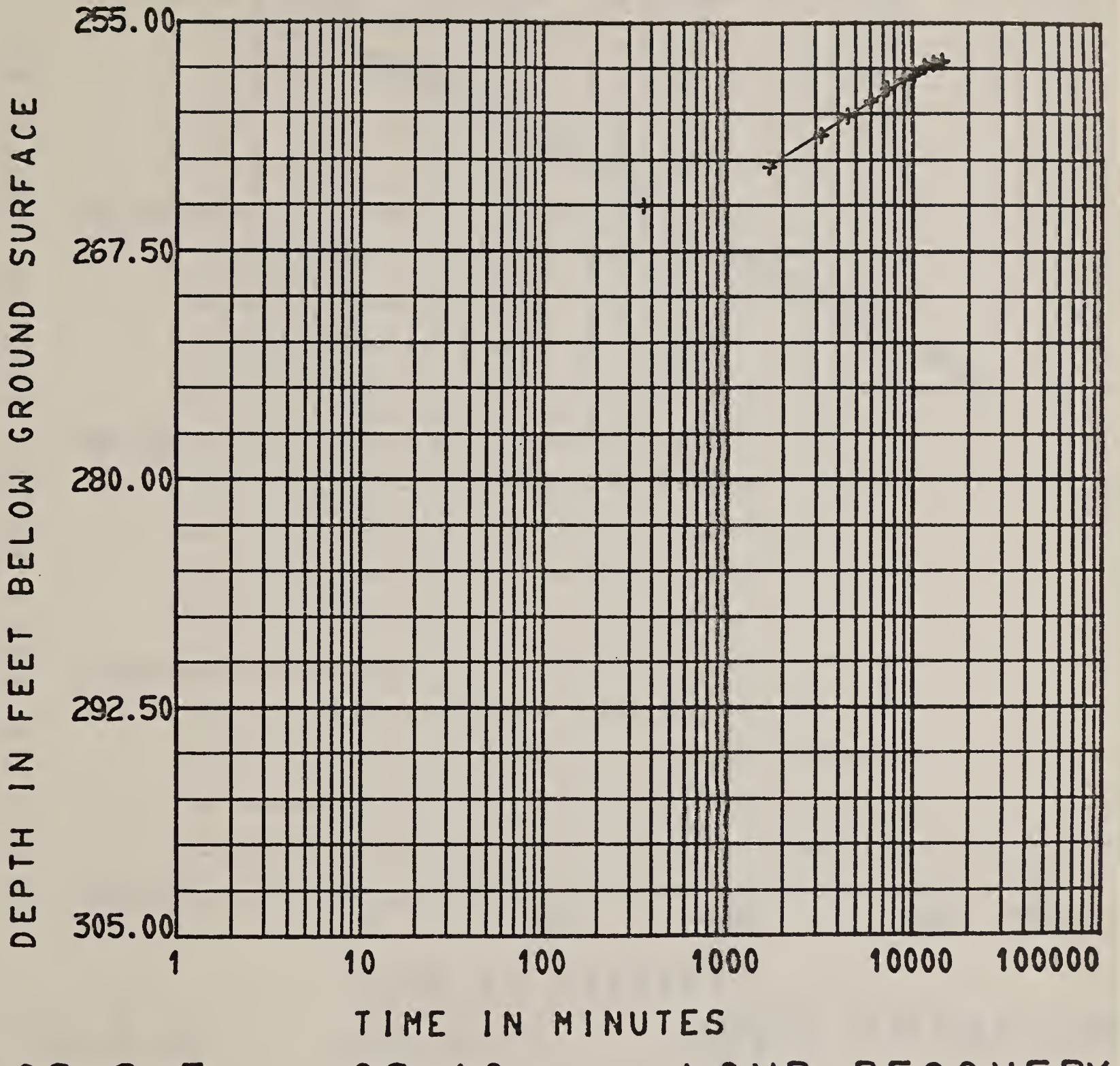
GS-2-3 GS-19 LOWR DRAWDOWN



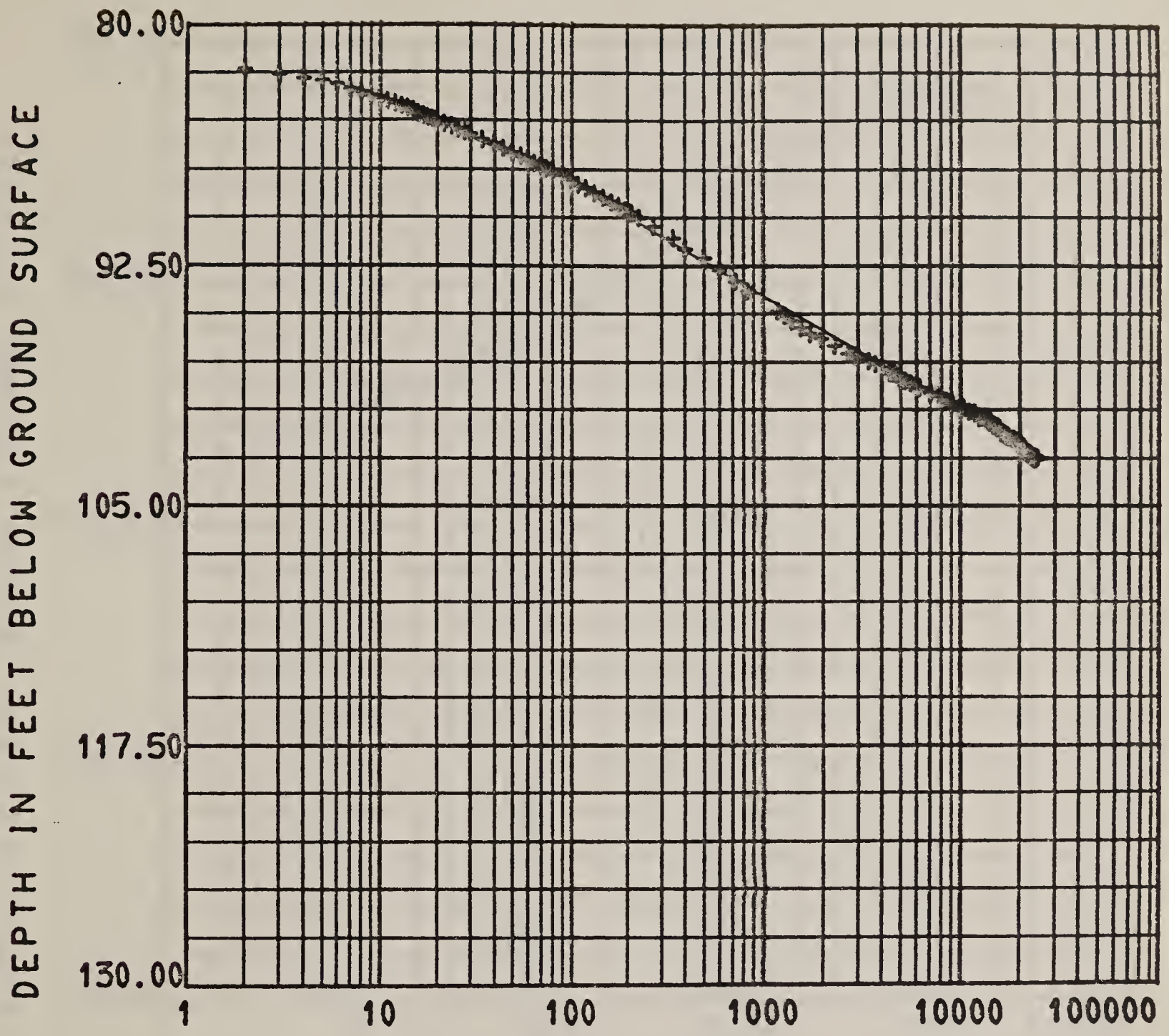
GS-2-3 GS-19 LOWR RECOVERY



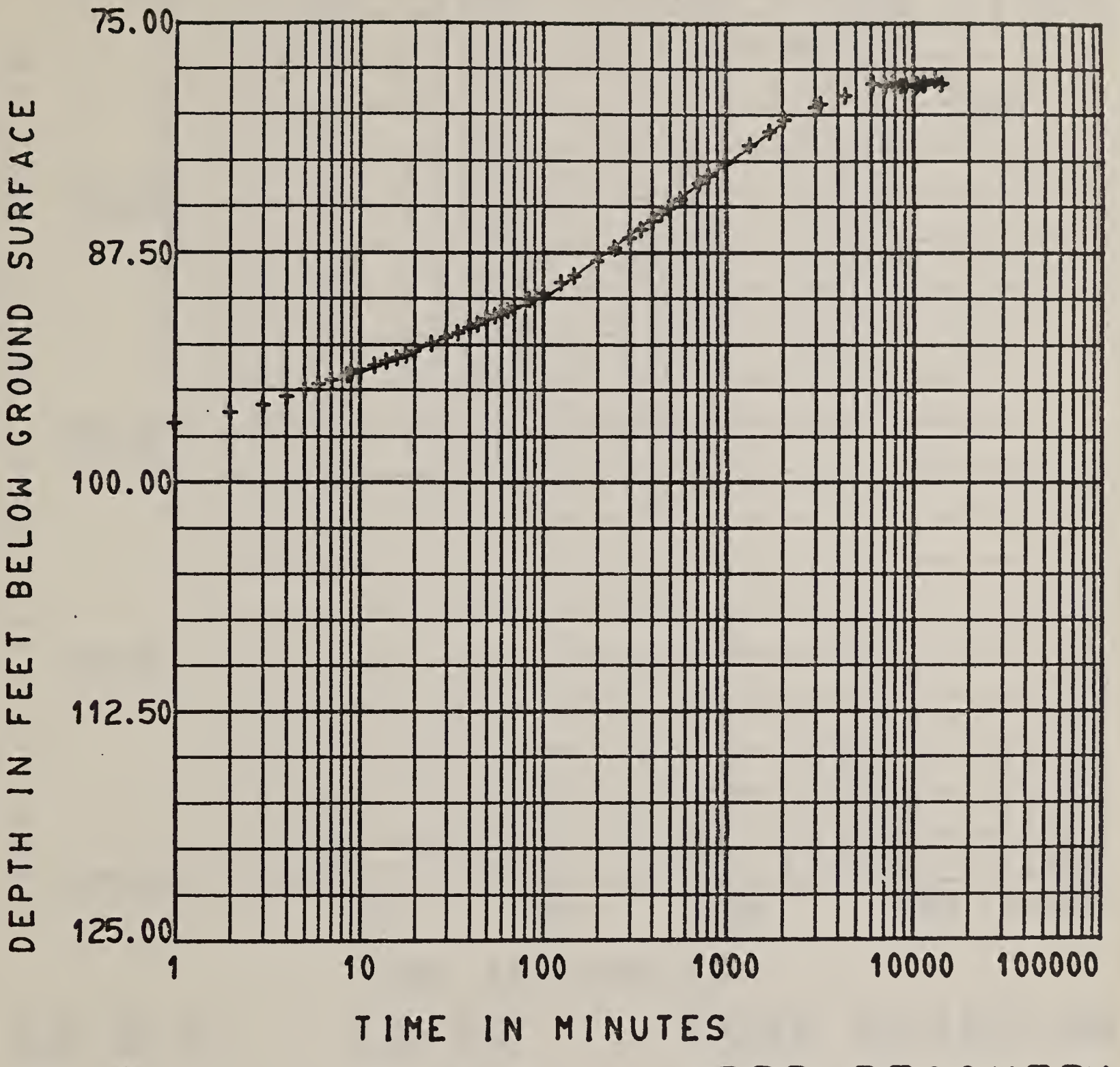
GS-2-3 GS-19 LOWR DRAWDOWN



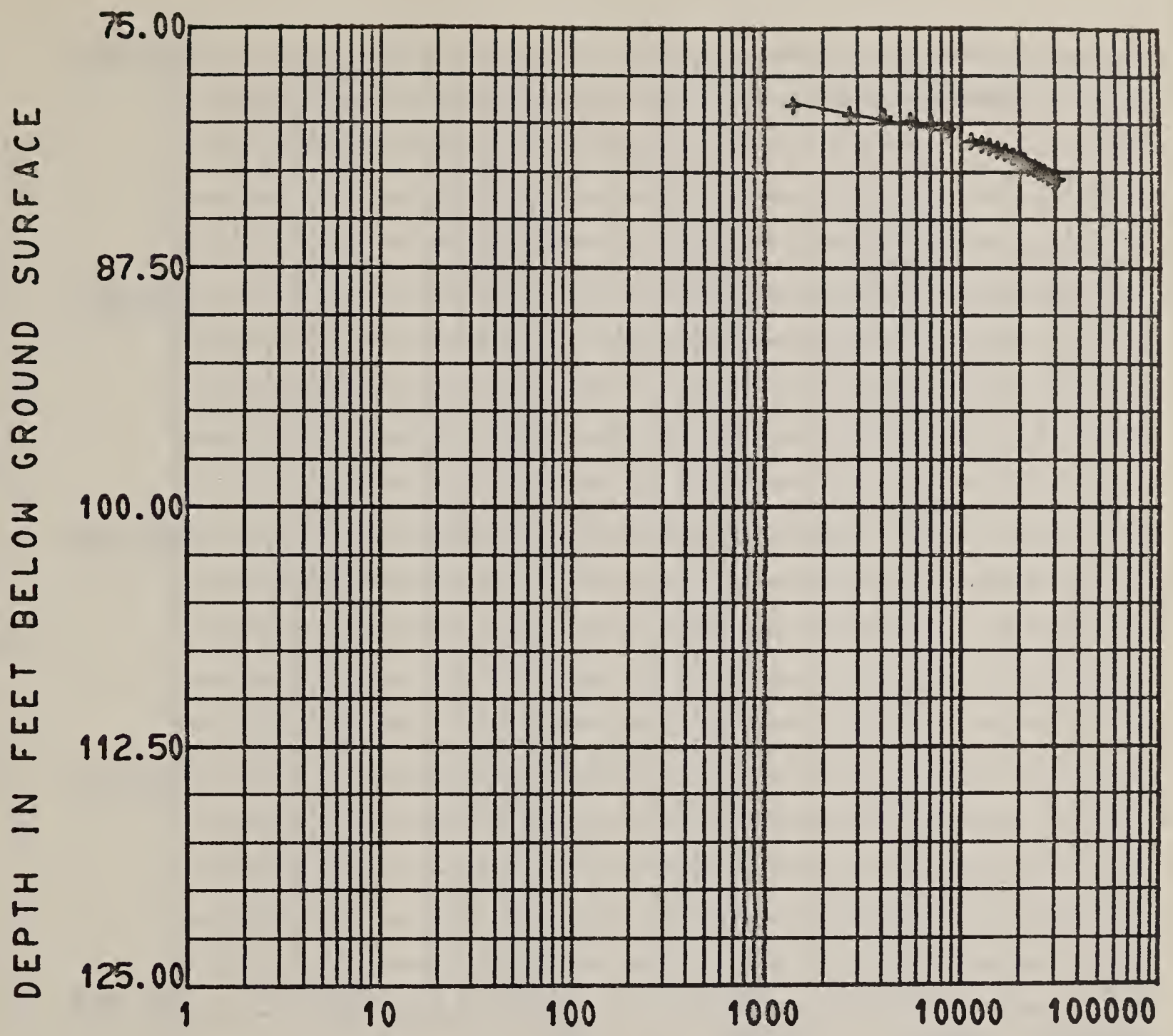
GS-2-3 GS-19 LOWR RECOVERY



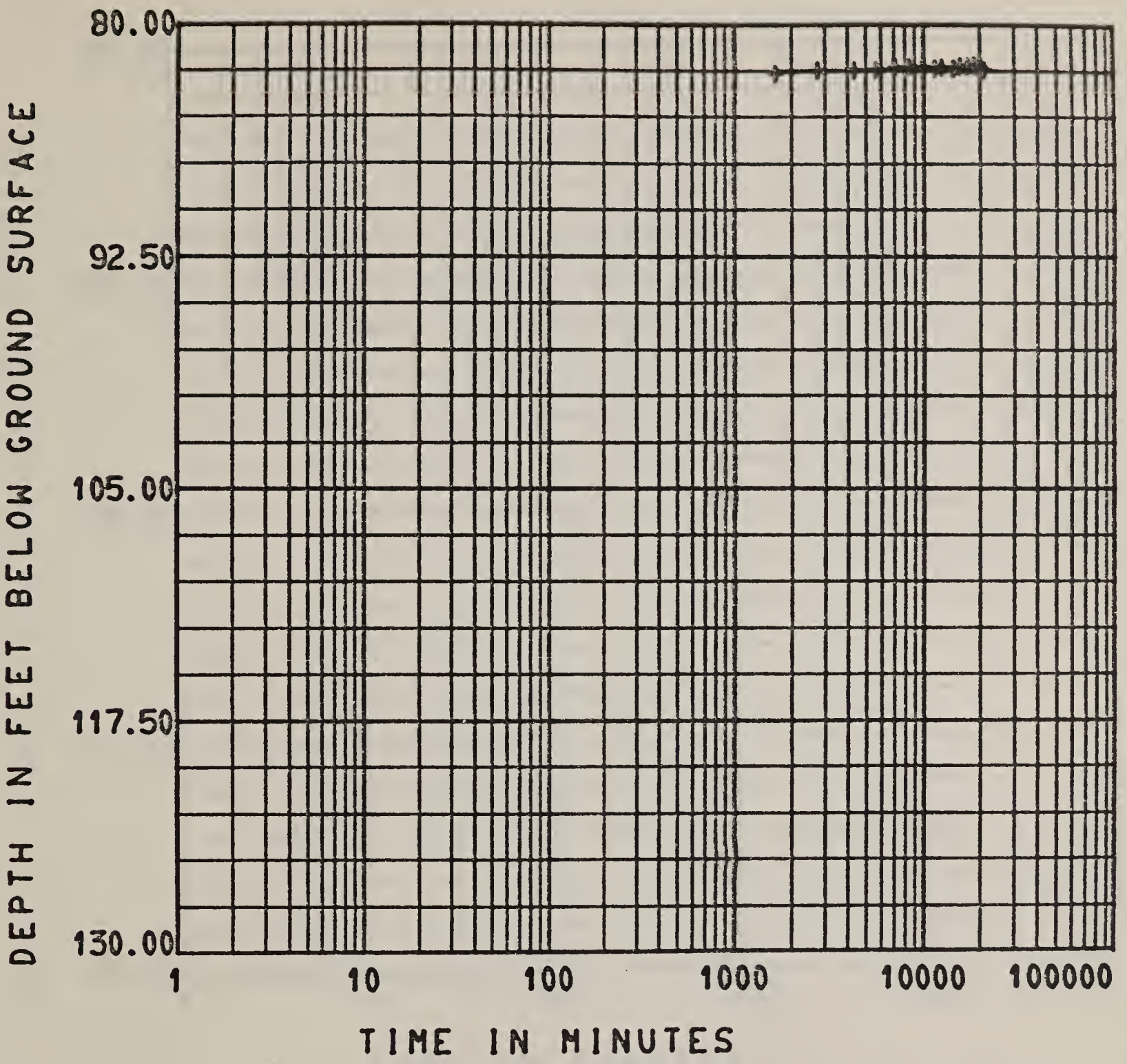
GS-4-5 GS-4-5 UPPR DRAWDOWN



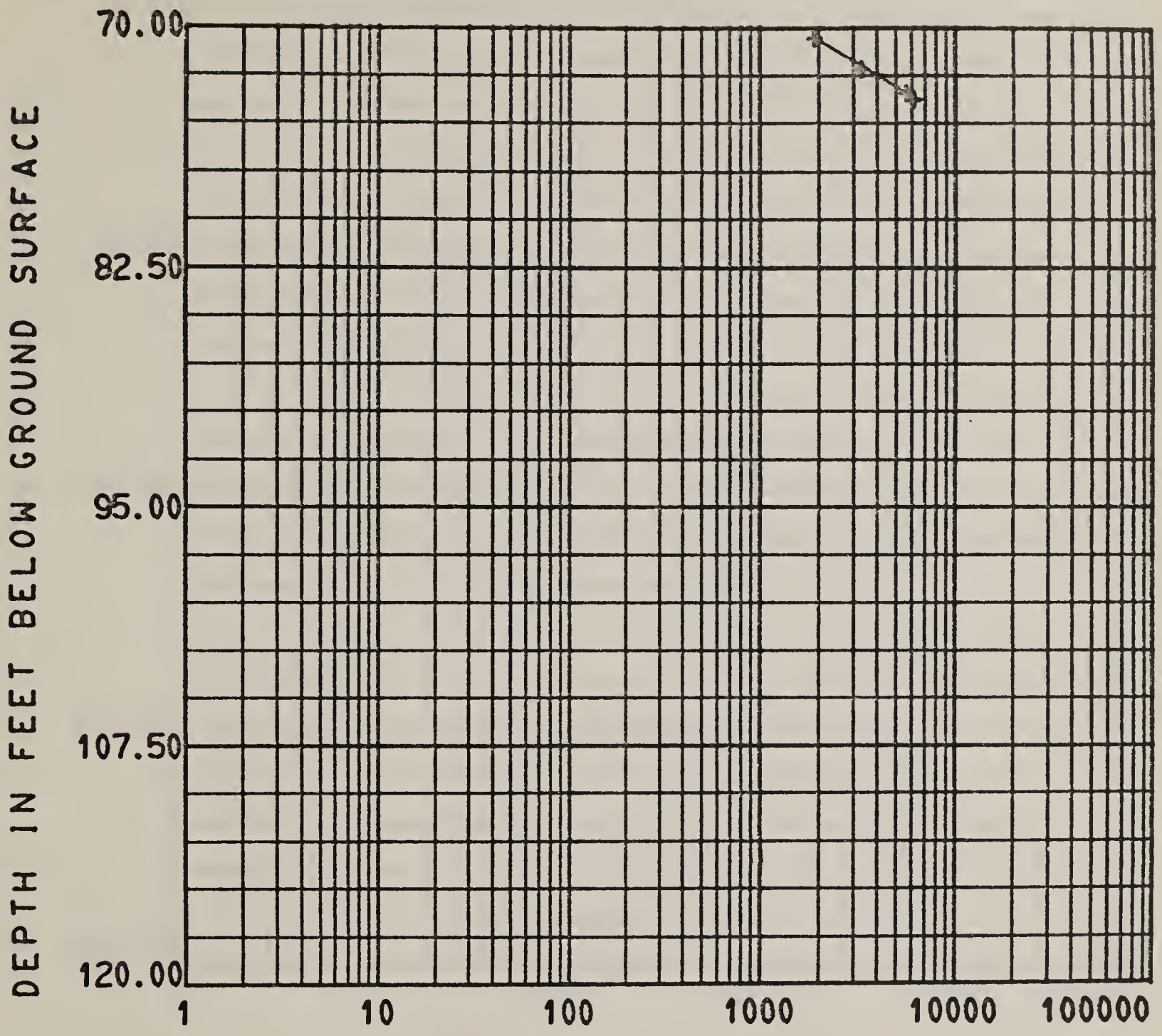
GS-4-5 GS-4-5 UPPR RECOVERY



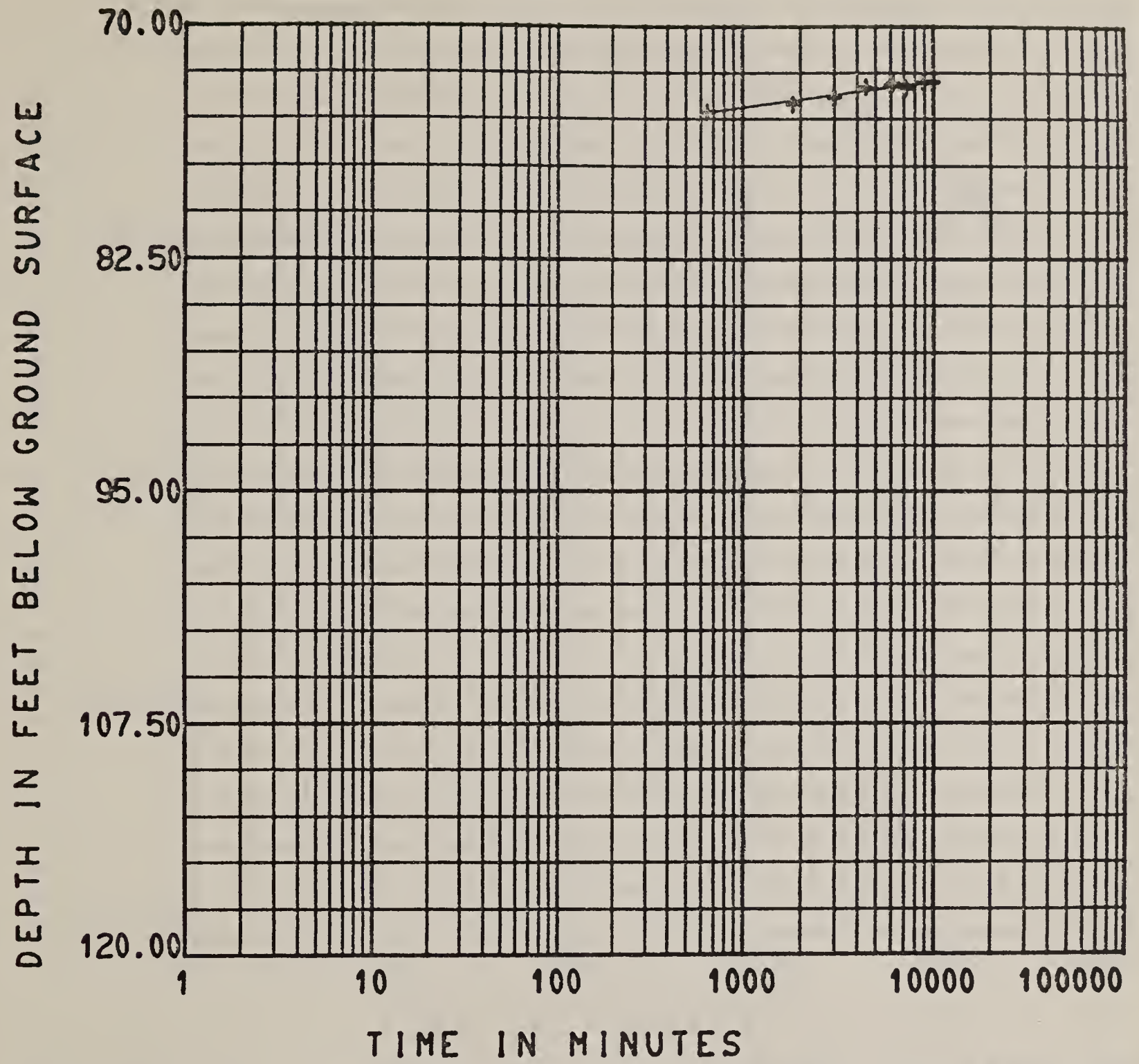
GS-4-5 GS-16 LOWR DRAWDOWN



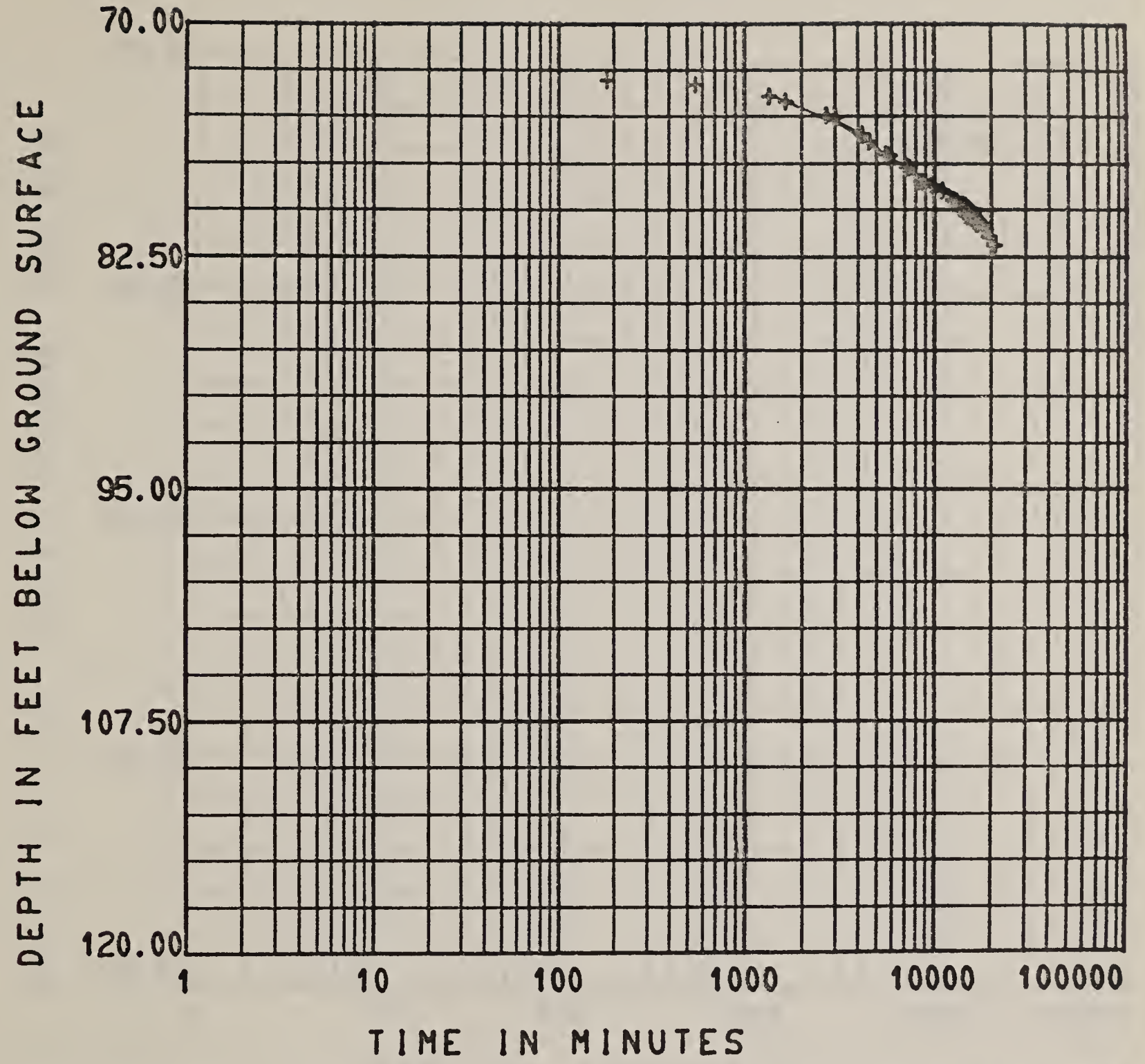
GS-4-5 GS-16 LOWR RECOVERY



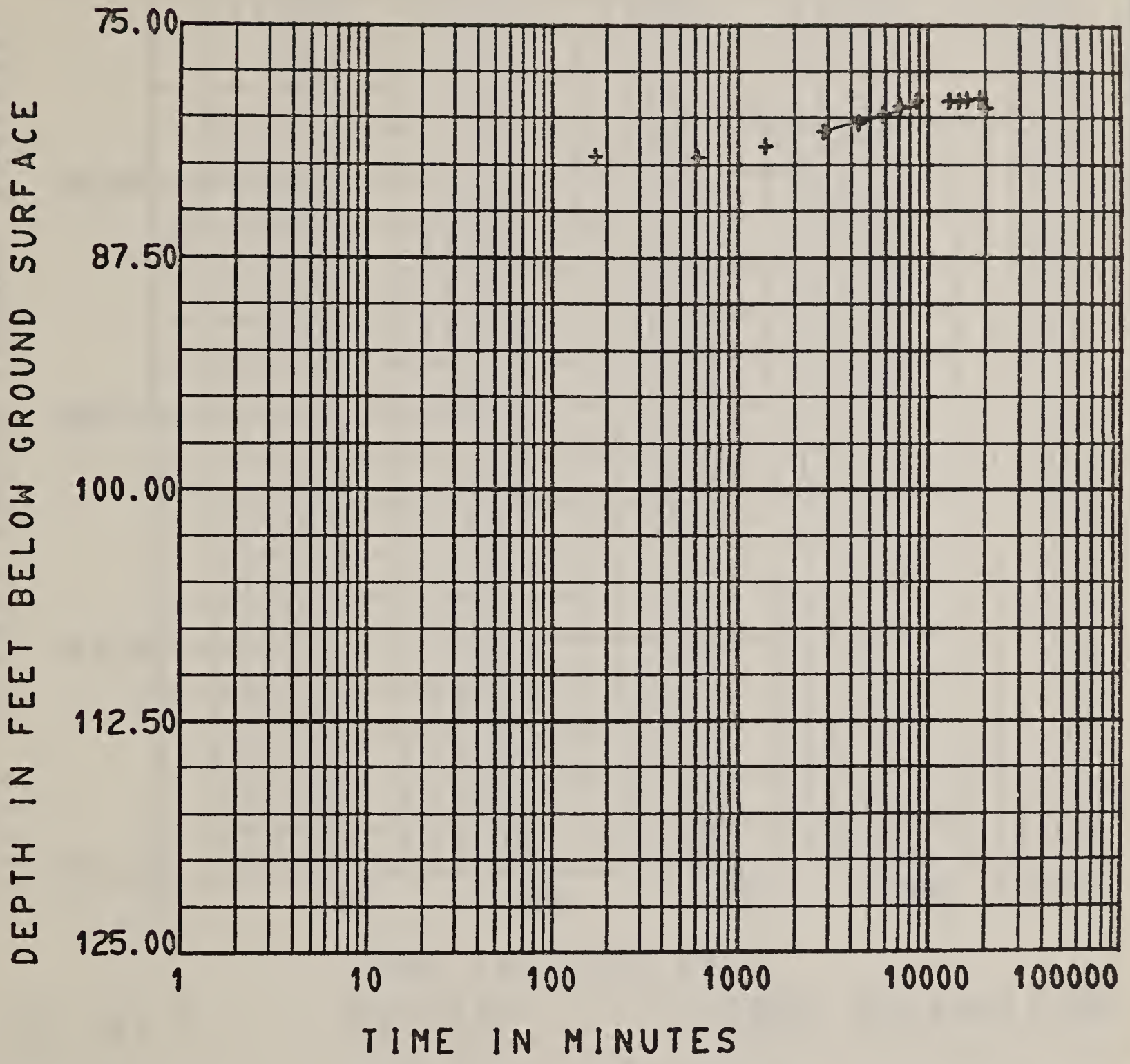
GS-4-5 GS-17 LOWR DRAWDOWN



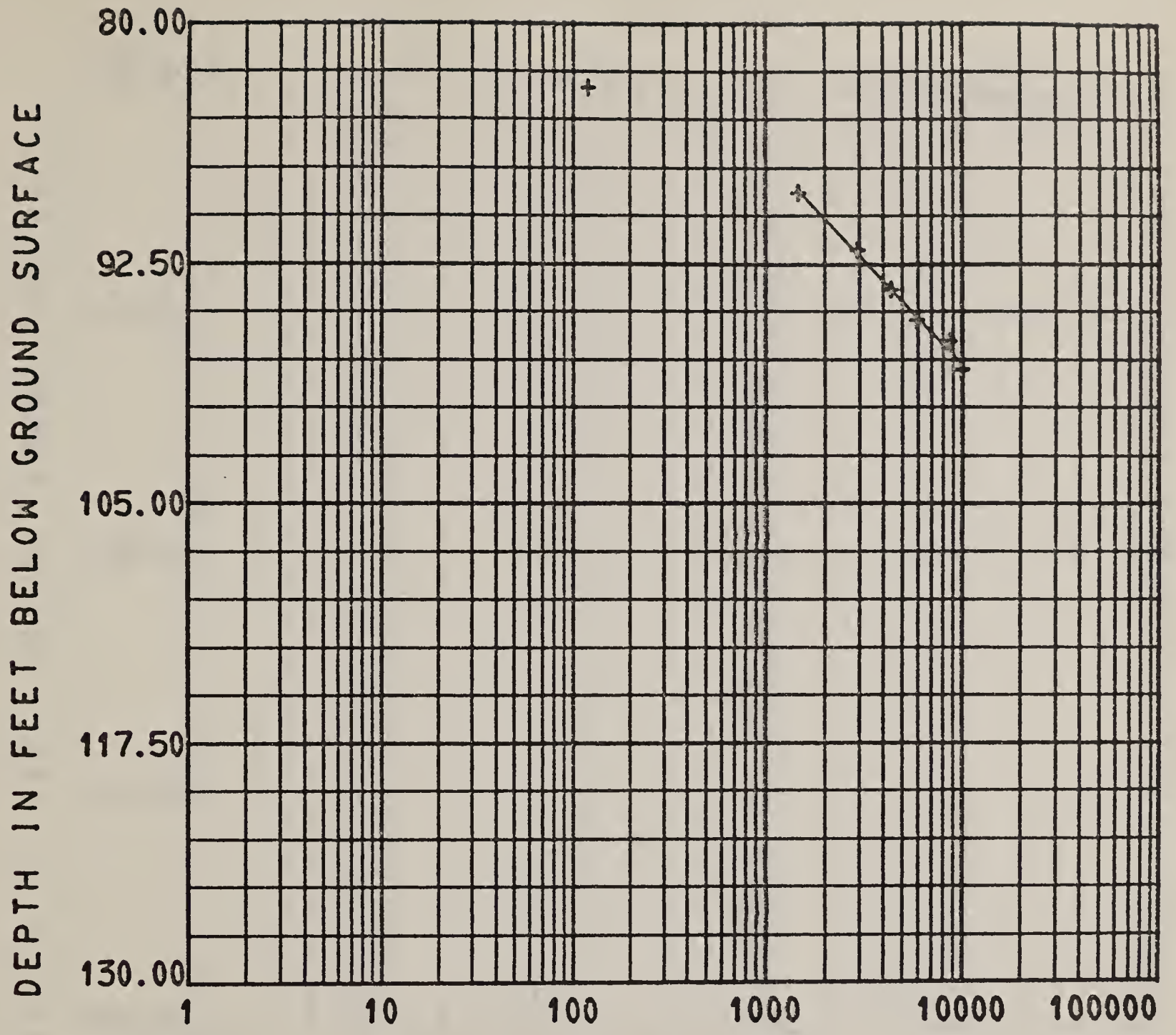
GS-4-5 GS-17 LOWR RECOVERY



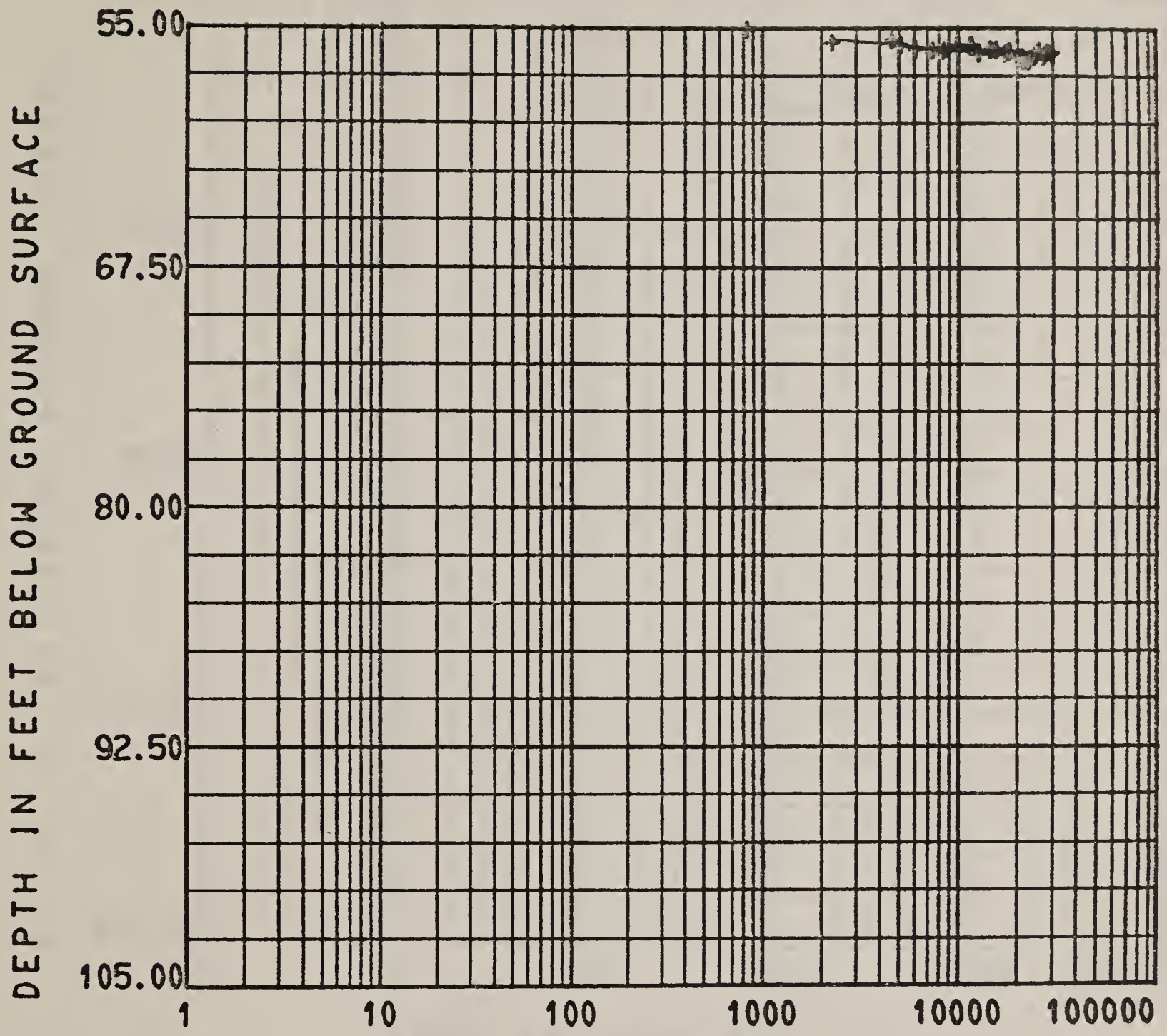
GS-4-5 GS-17 LOWR DRAWDOWN



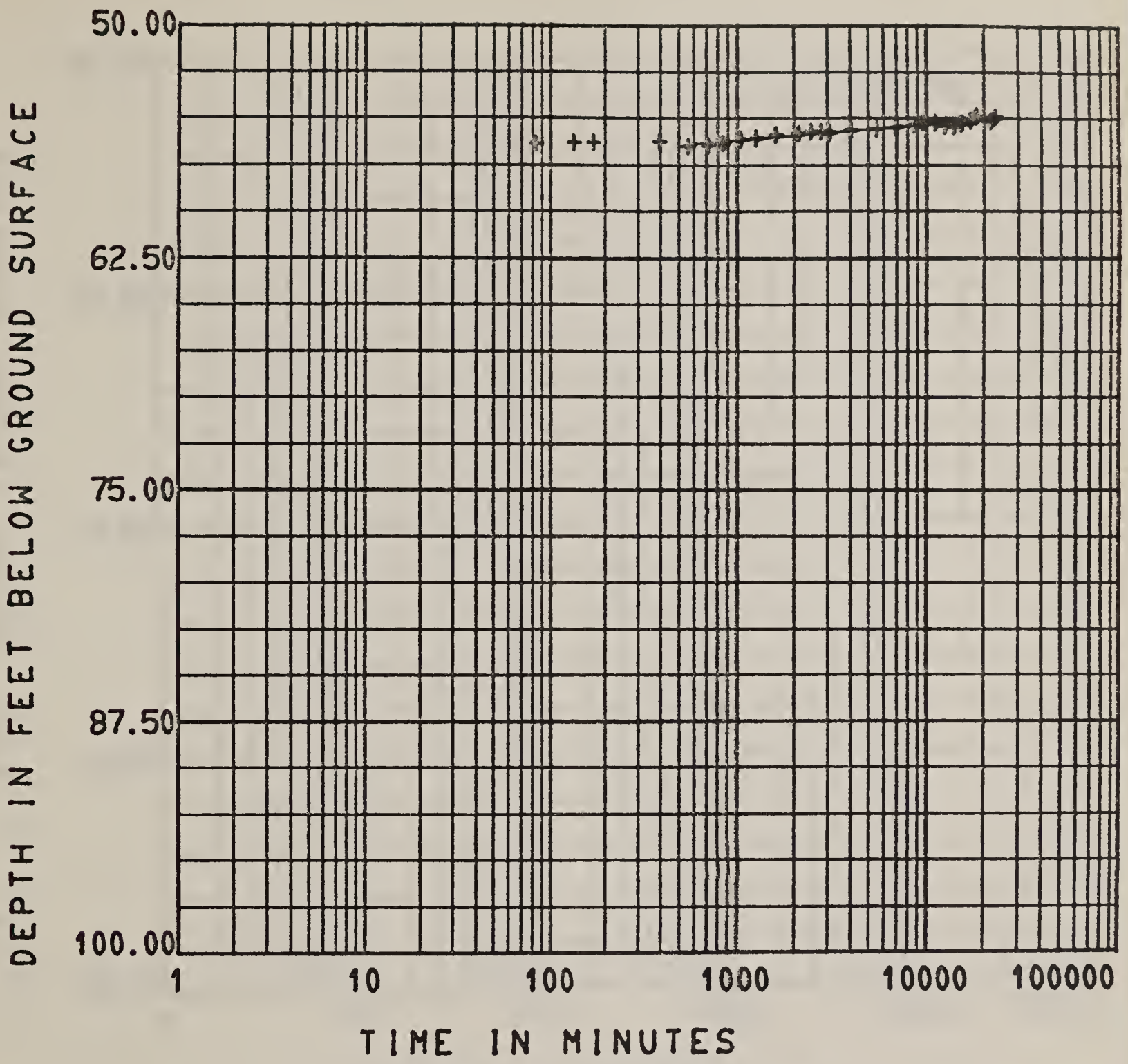
GS-4-5 GS-17 LOWR RECOVERY



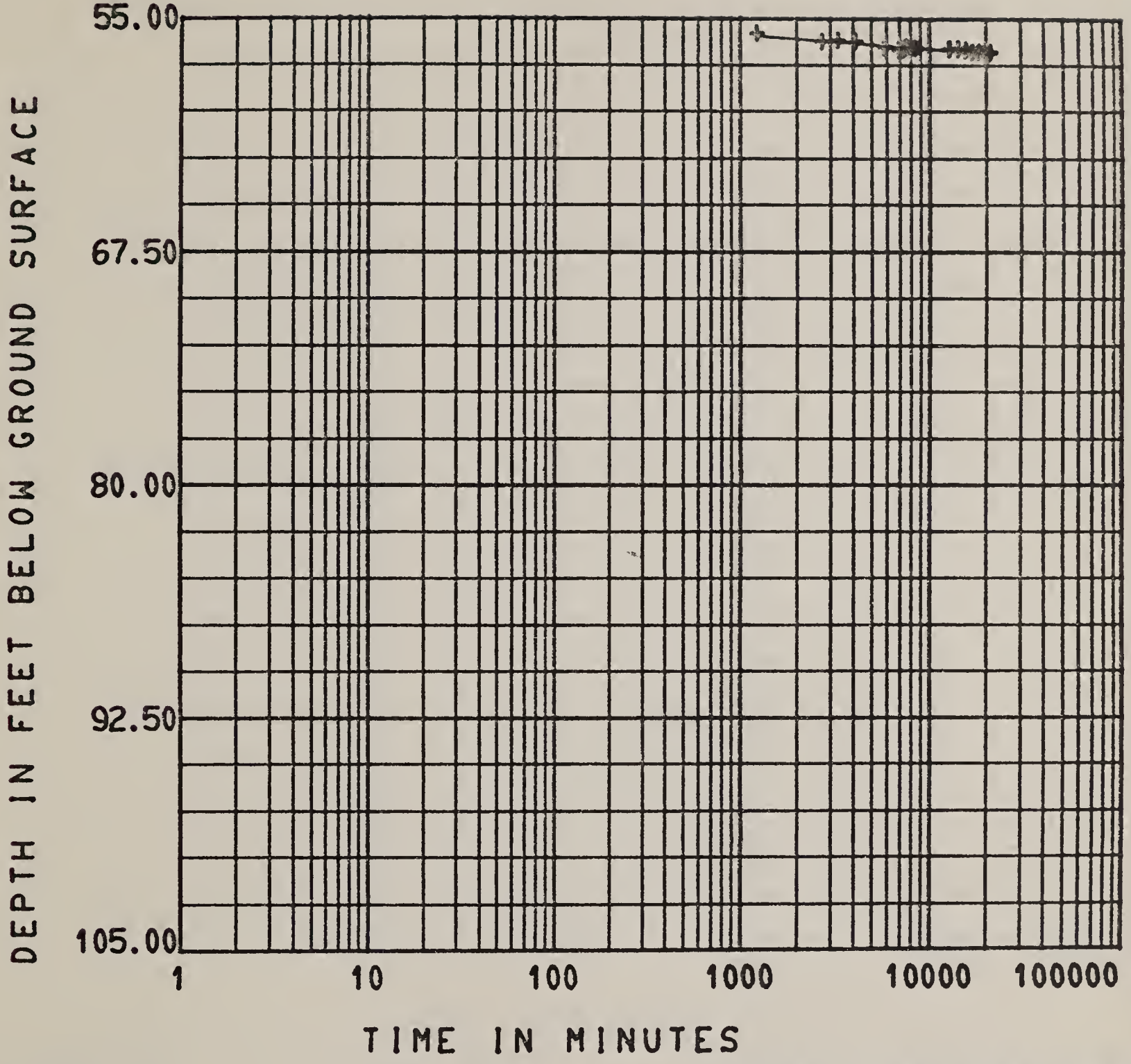
GS-4-5 GS-19 LOWR DRAWDOWN

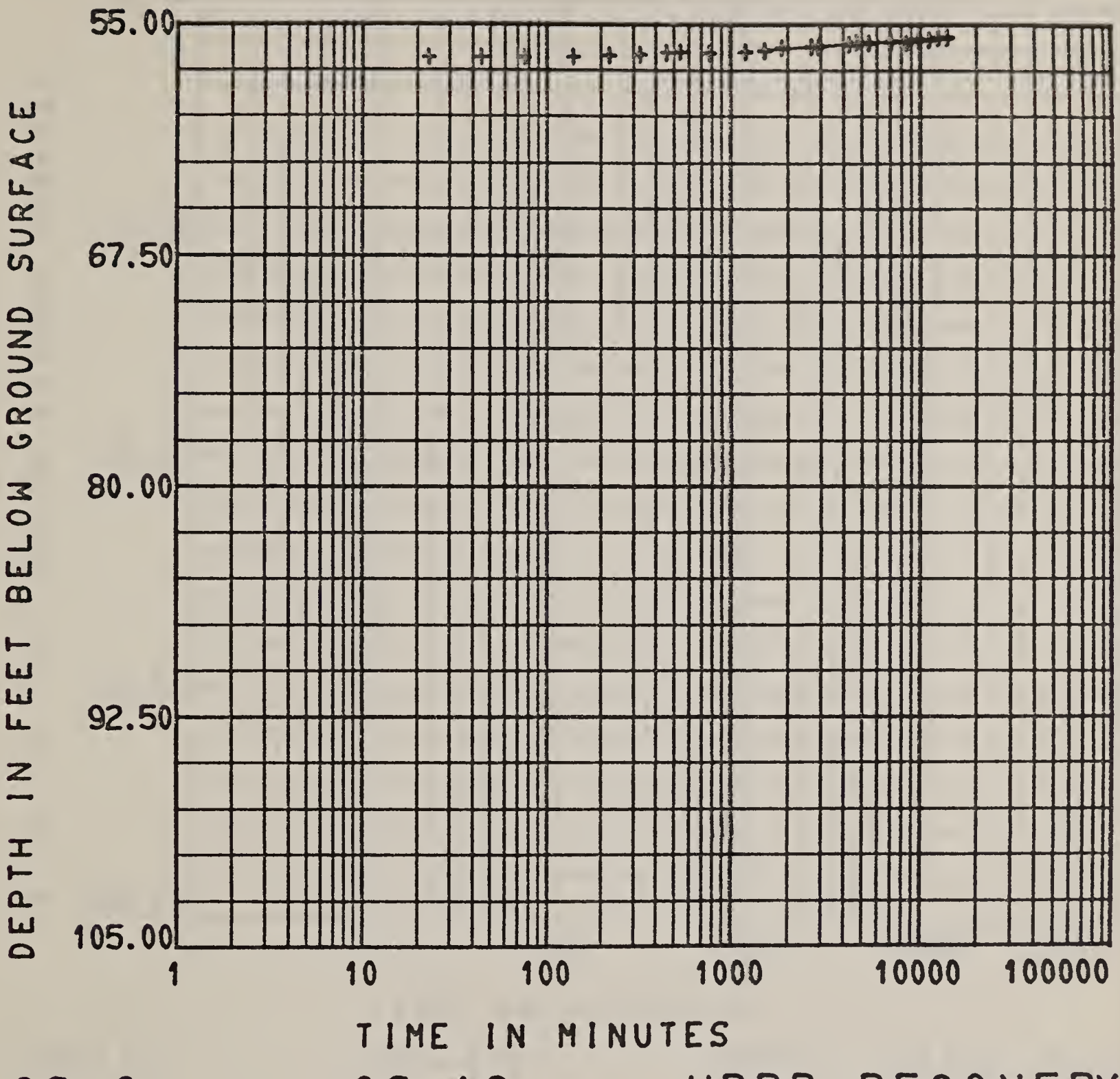


GS-6 TO-3 UPPR DRAWDOWN

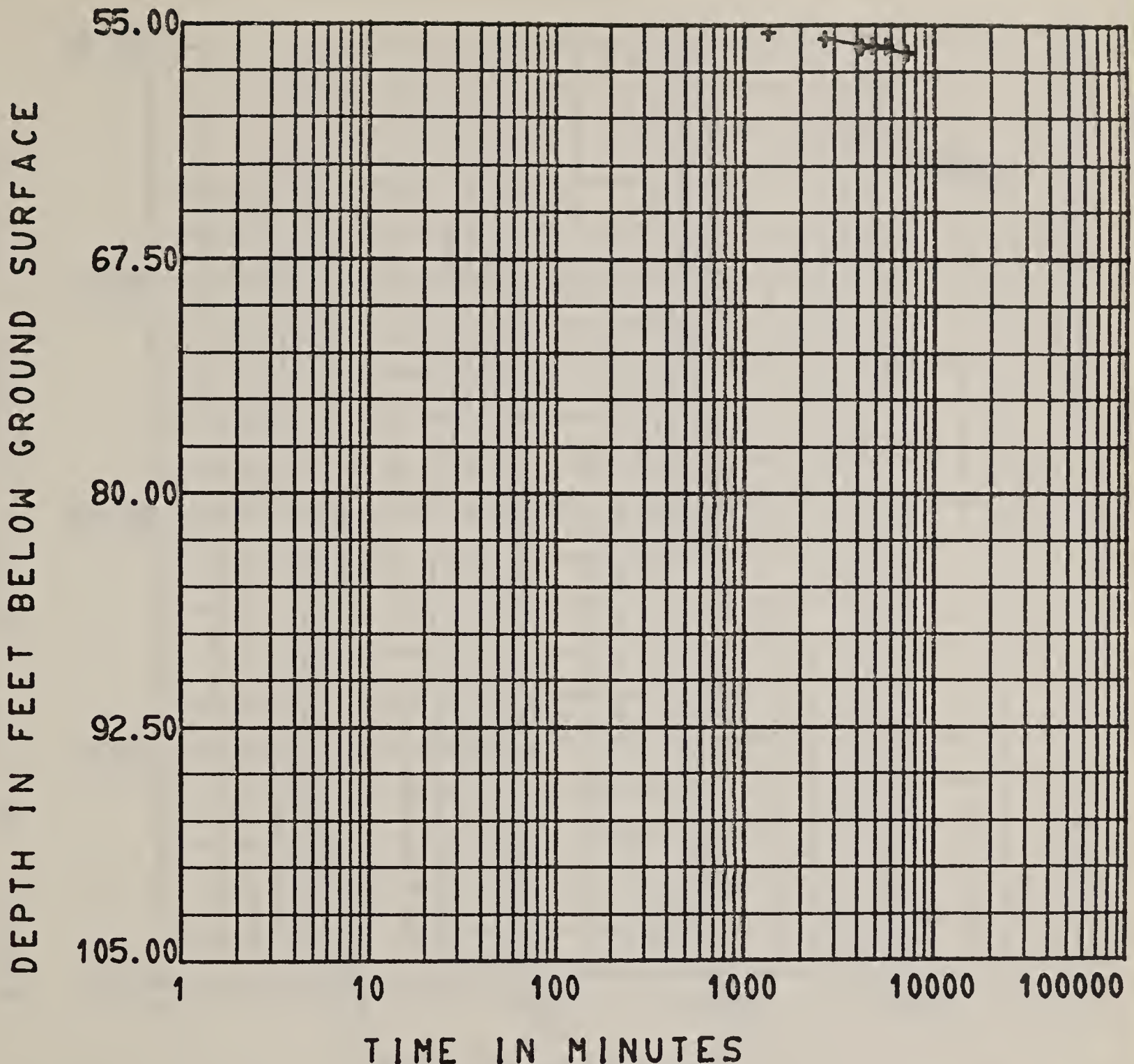


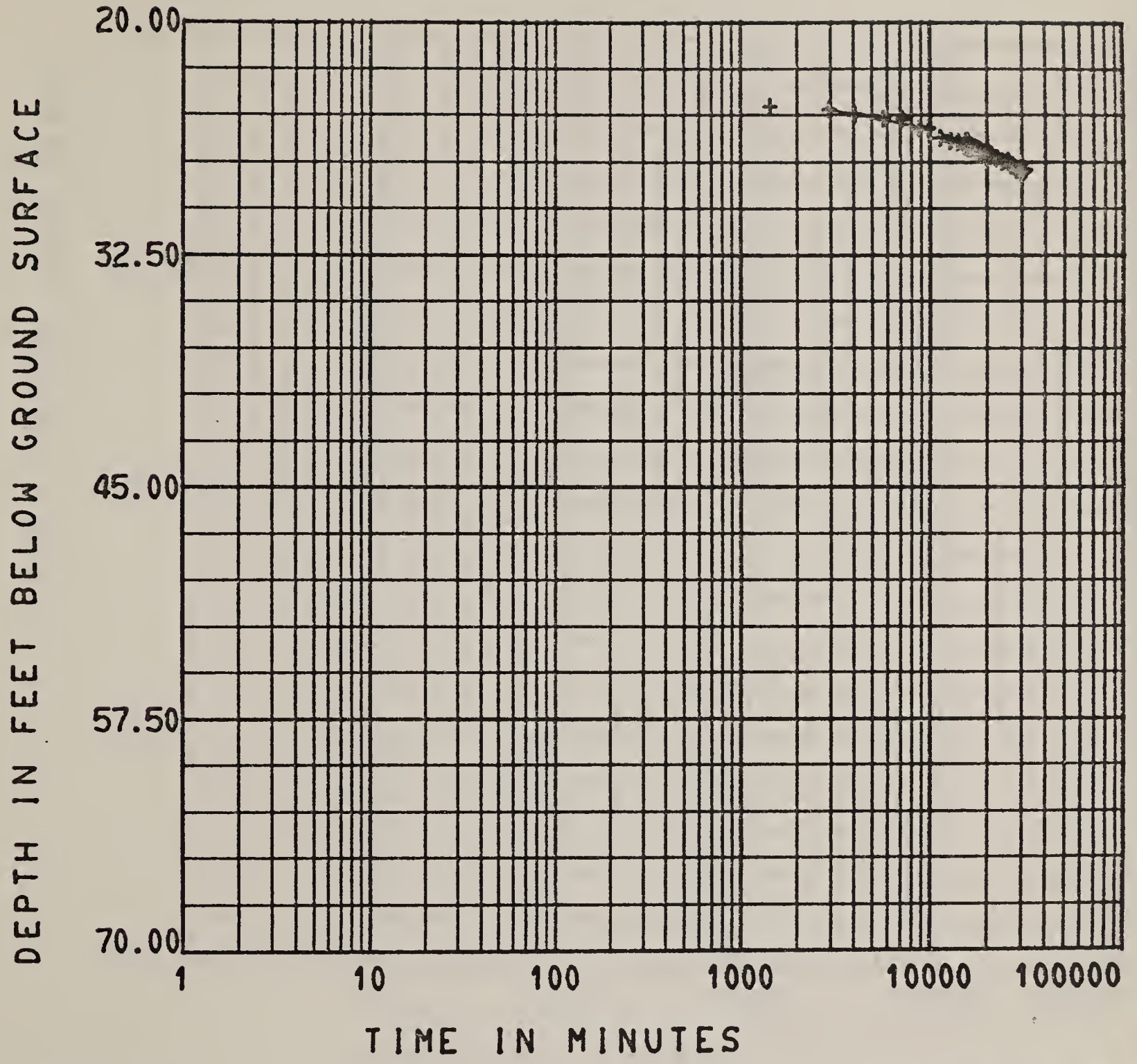
GS-6 TO-3 UPPR RECOVERY


55.00
67.50
80.00
92.50
105.00
DEPTH IN FEET BELOW GROUND SURFACE
1
10
100
1000
10000
100000
TIME IN MINUTES
GS-6
GS-18
UPPR DRAWDOWN

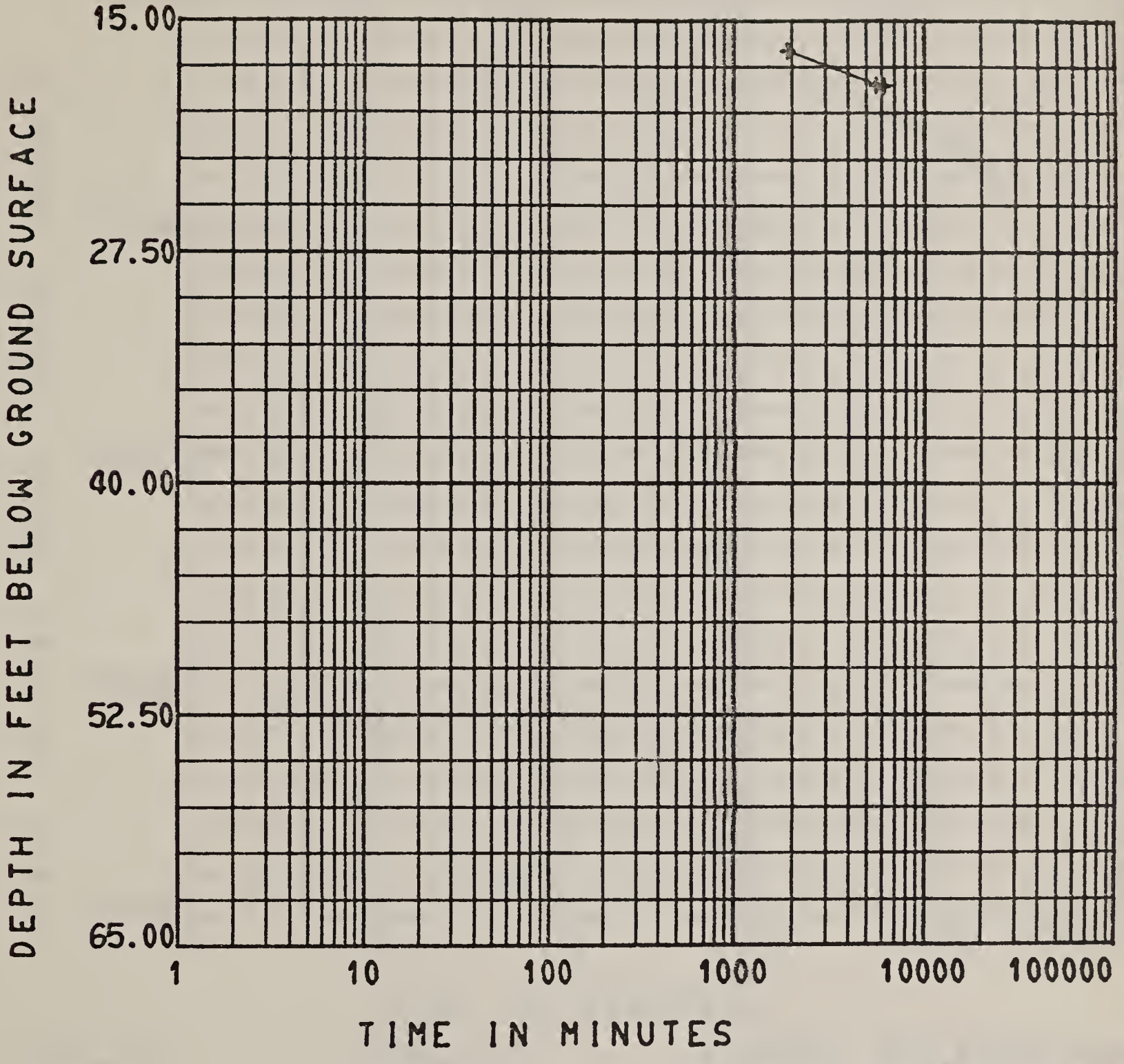


GS-6 GS-18 UPPR RECOVERY

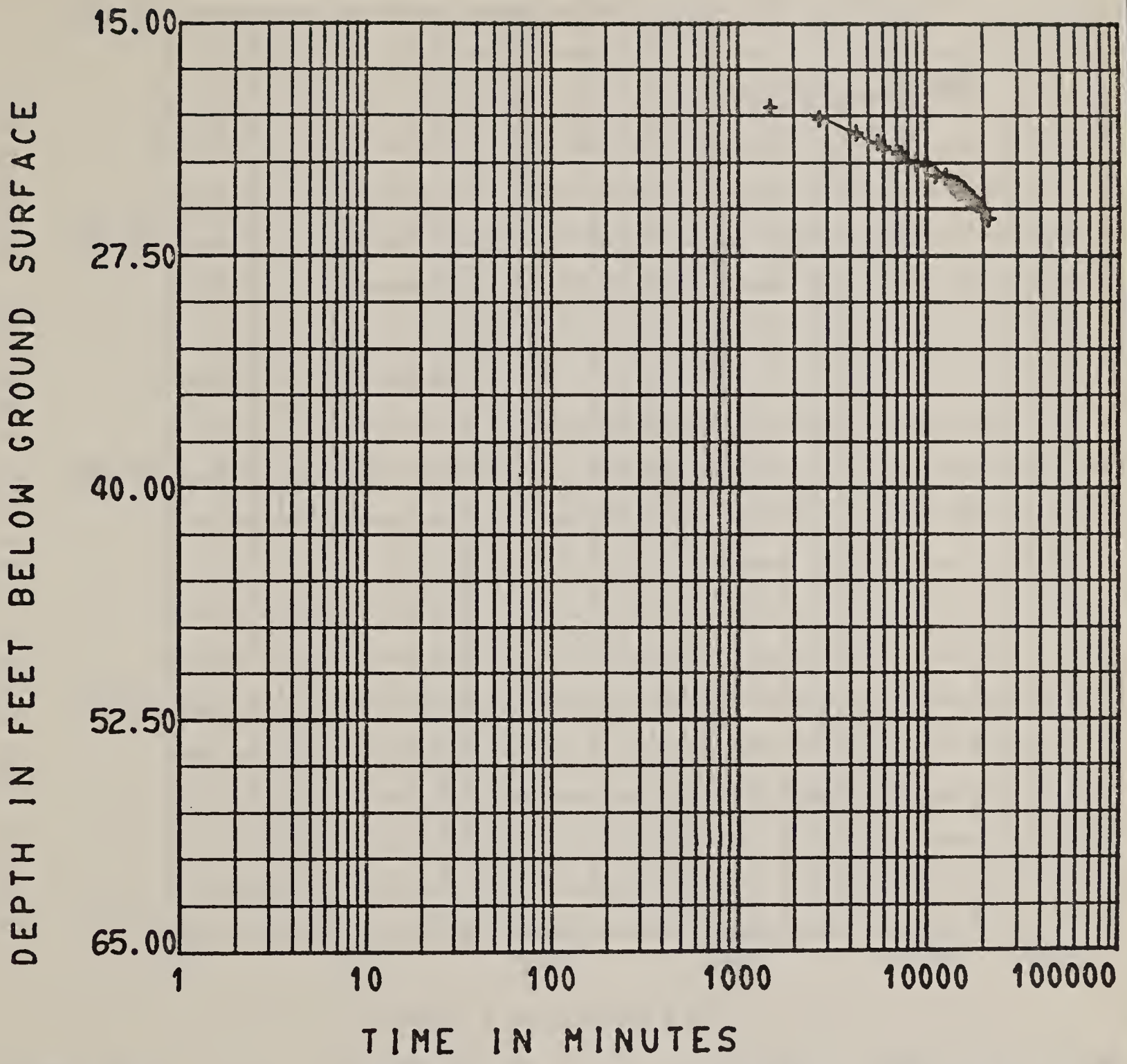

55.00
67.50
80.00
92.50
105.00
DEPTH IN FEET BELOW GROUND SURFACE
1
10
100
1000
10000
100000
TIME IN MINUTES
GS-6
GS-19
UPPR DRAWDOWN



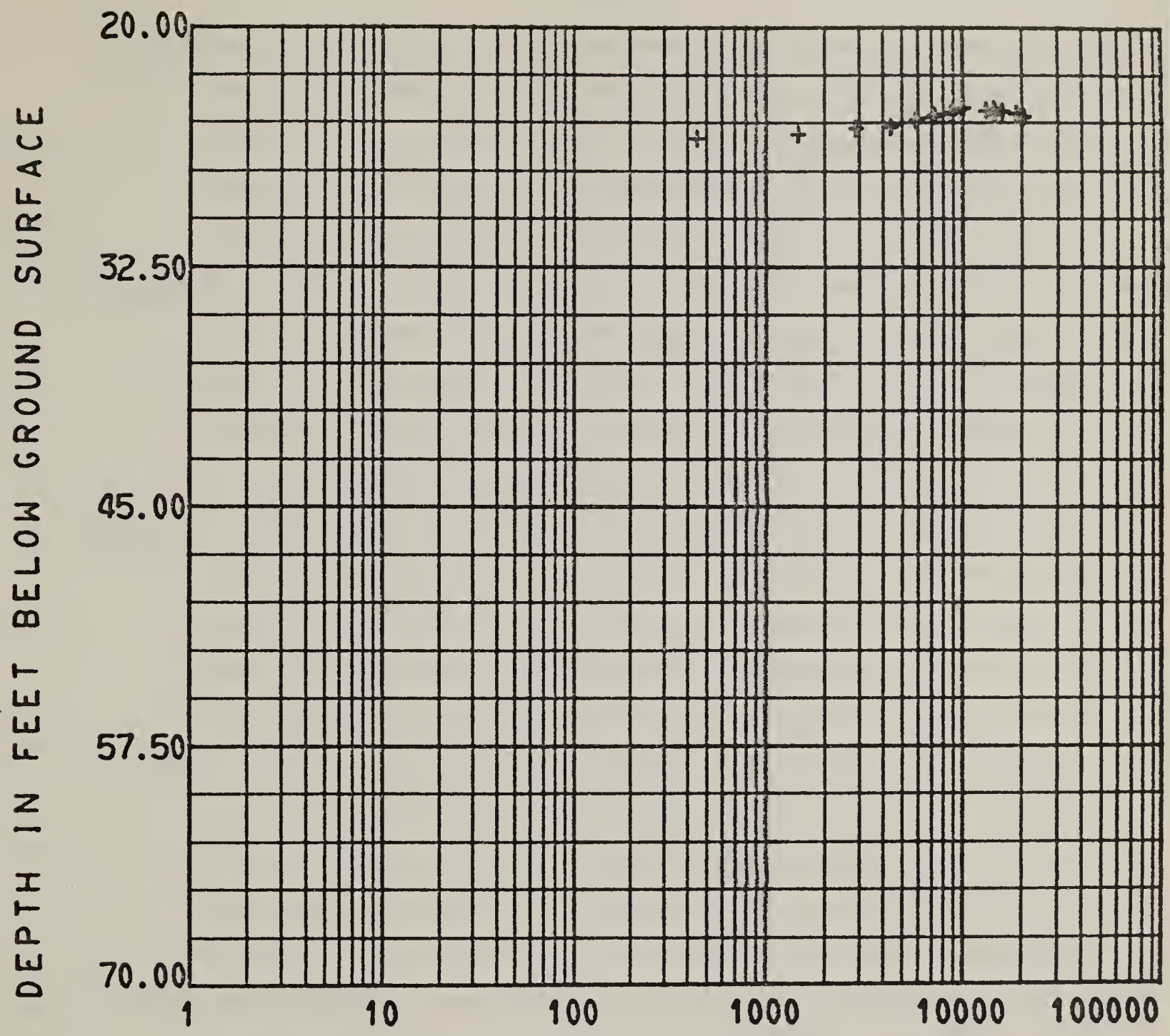
GS-6 GS-16 LOWR DRAWDOWN



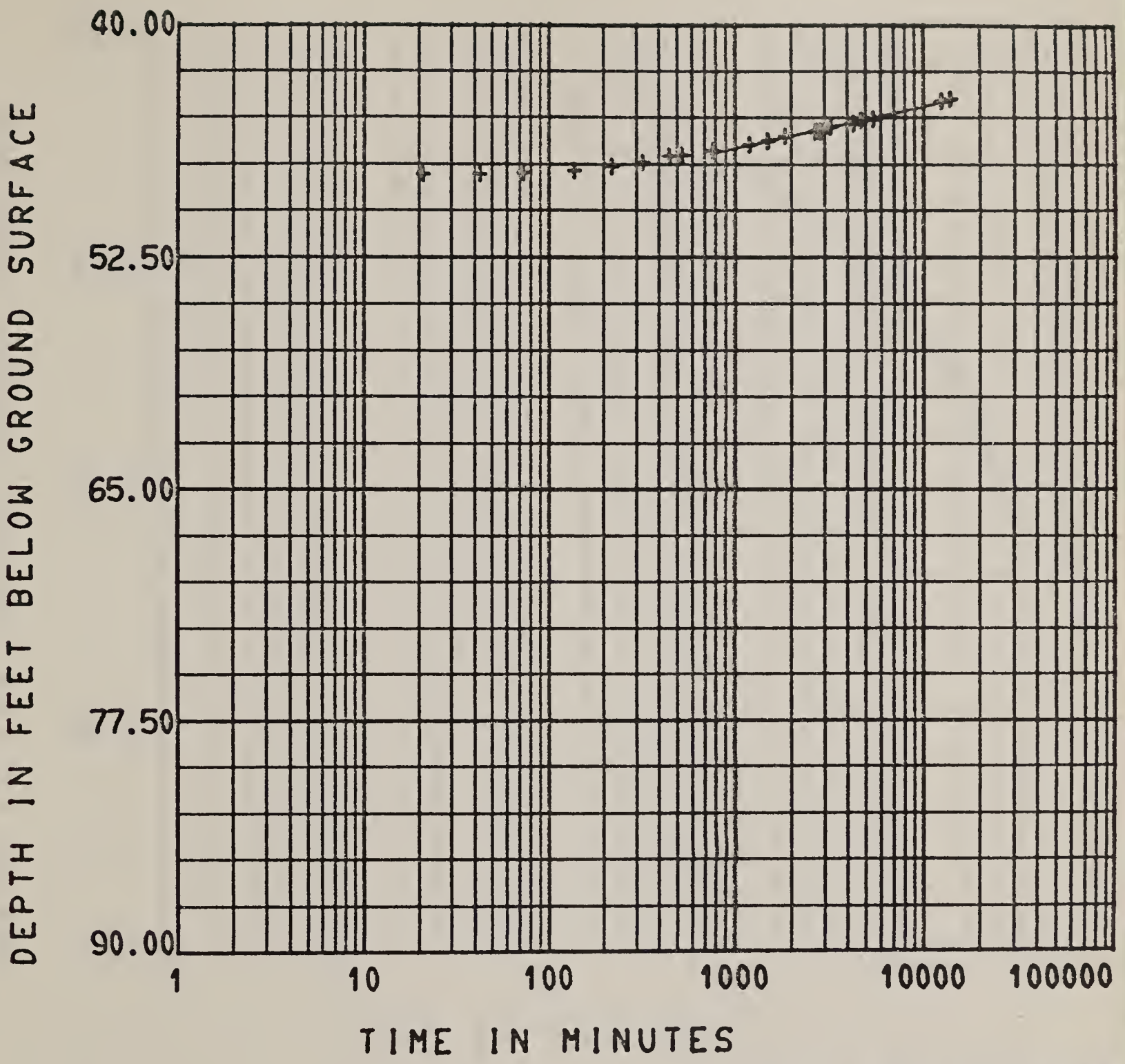
GS-6 GS-17 LOWR DRAWDOWN



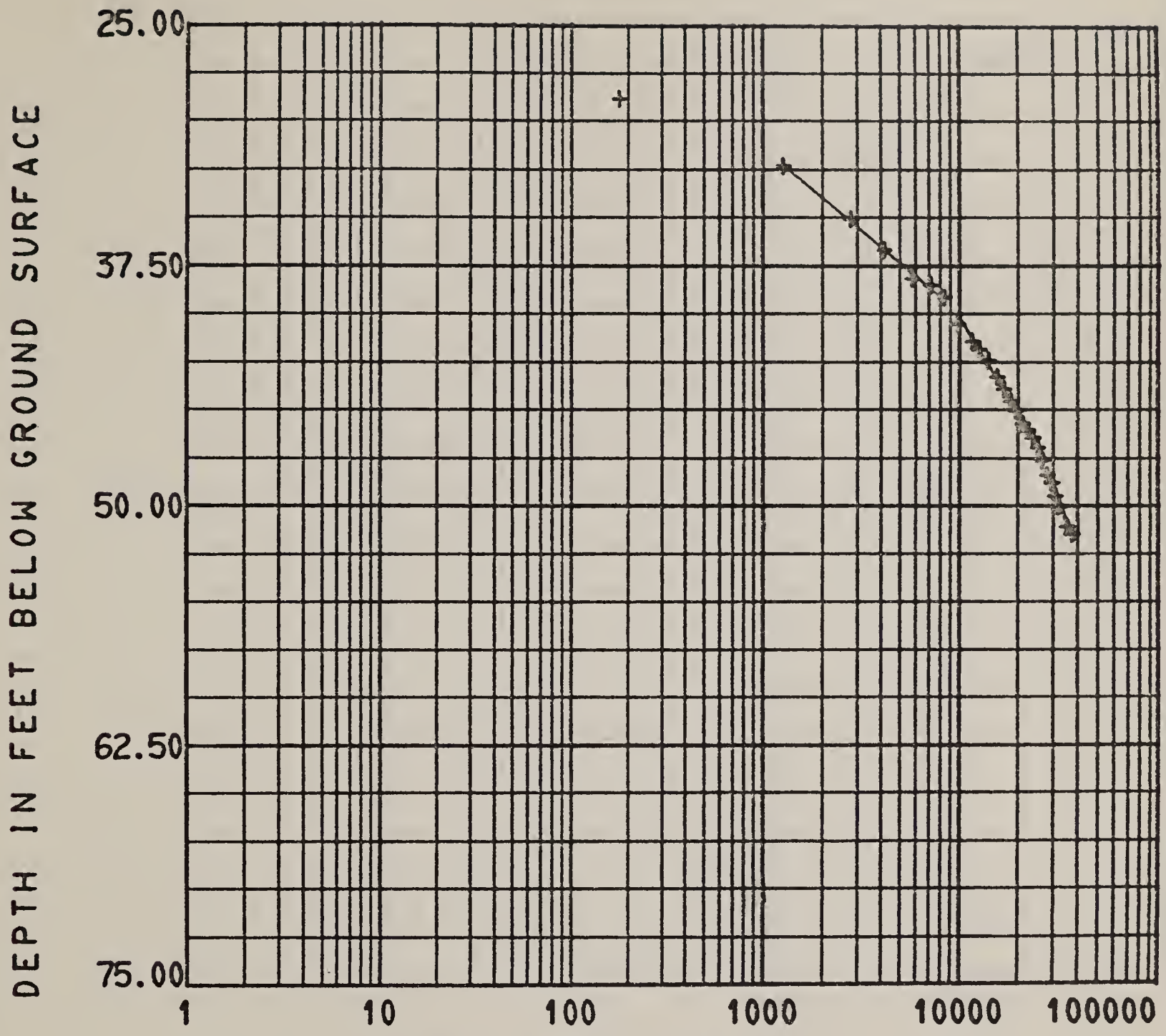
GS-6 GS-17 LOWR DRAWDOWN



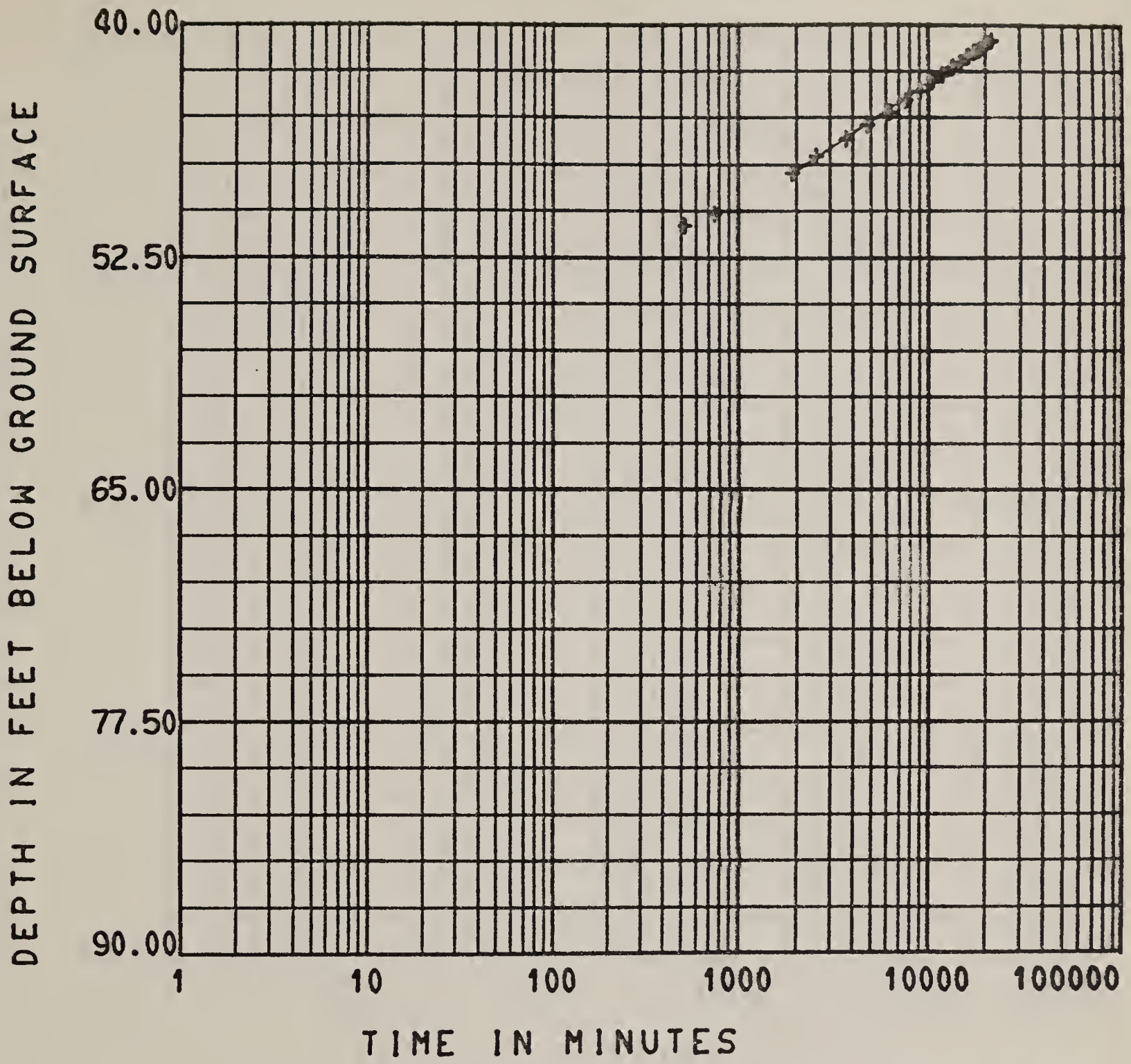
GS-6 GS-17 LOWR RECOVERY



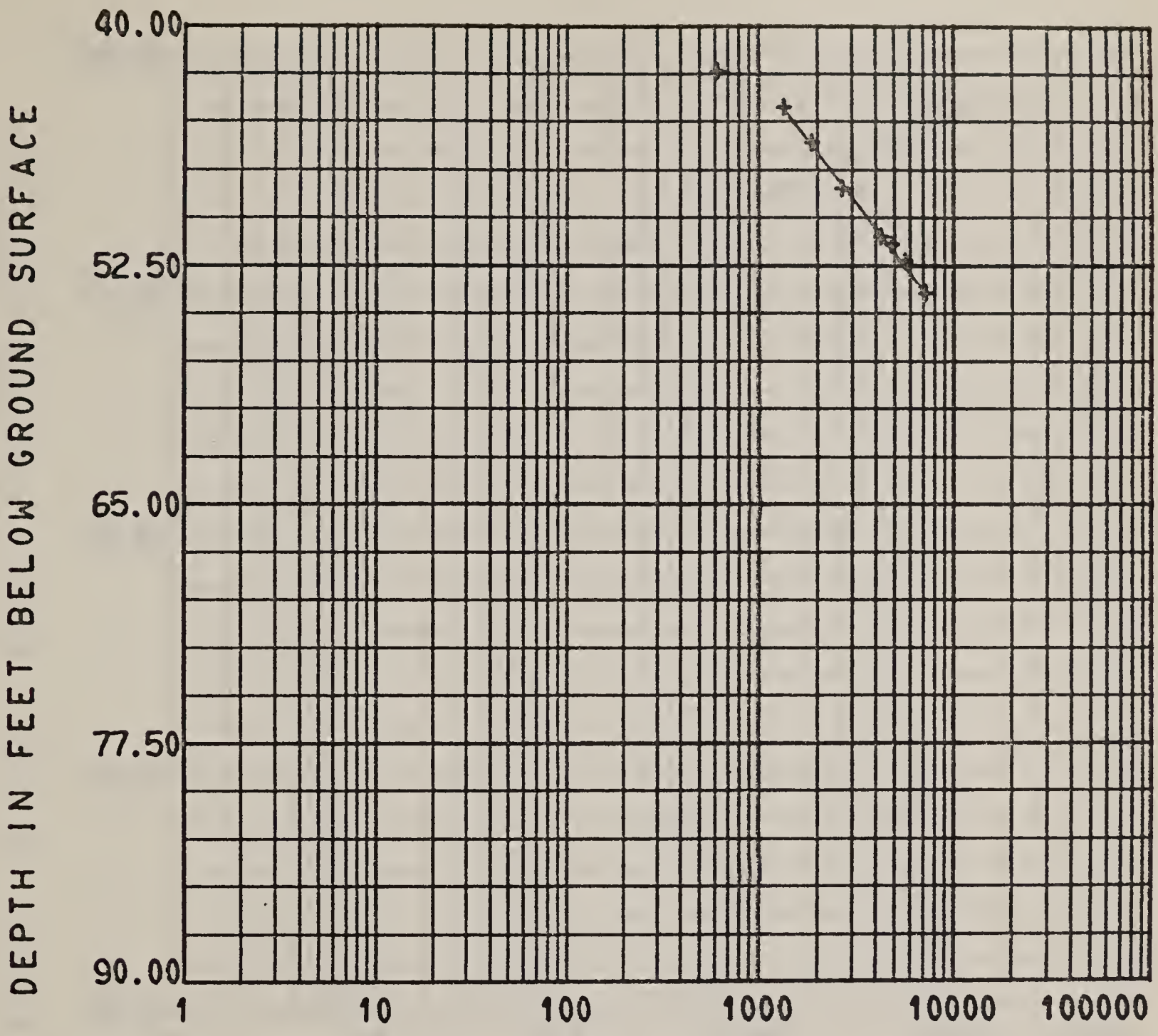
GS-6 GS-18 LOWR RECOVERY



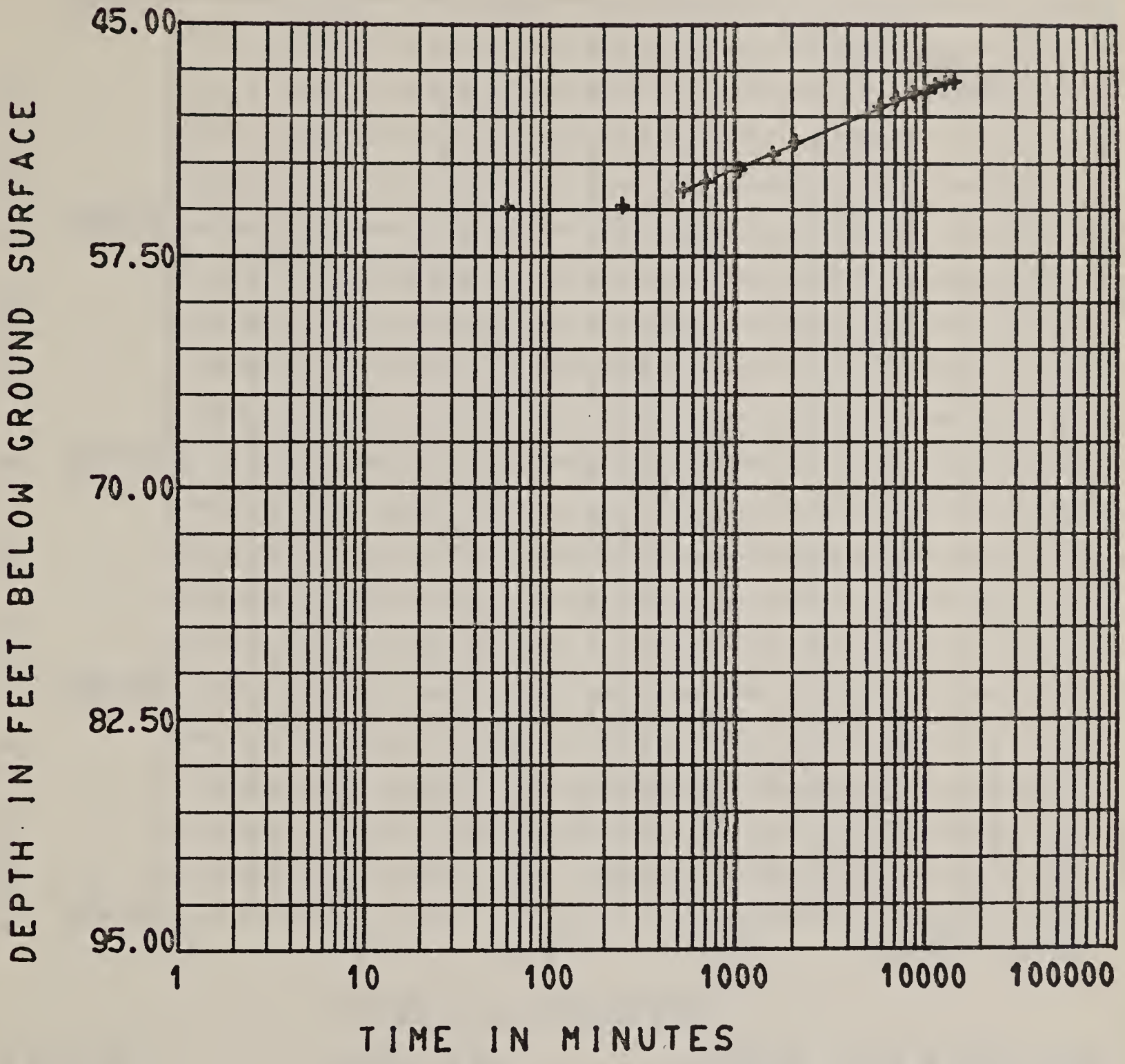
GS-6 GS-19 LOWR DRAWDOWN



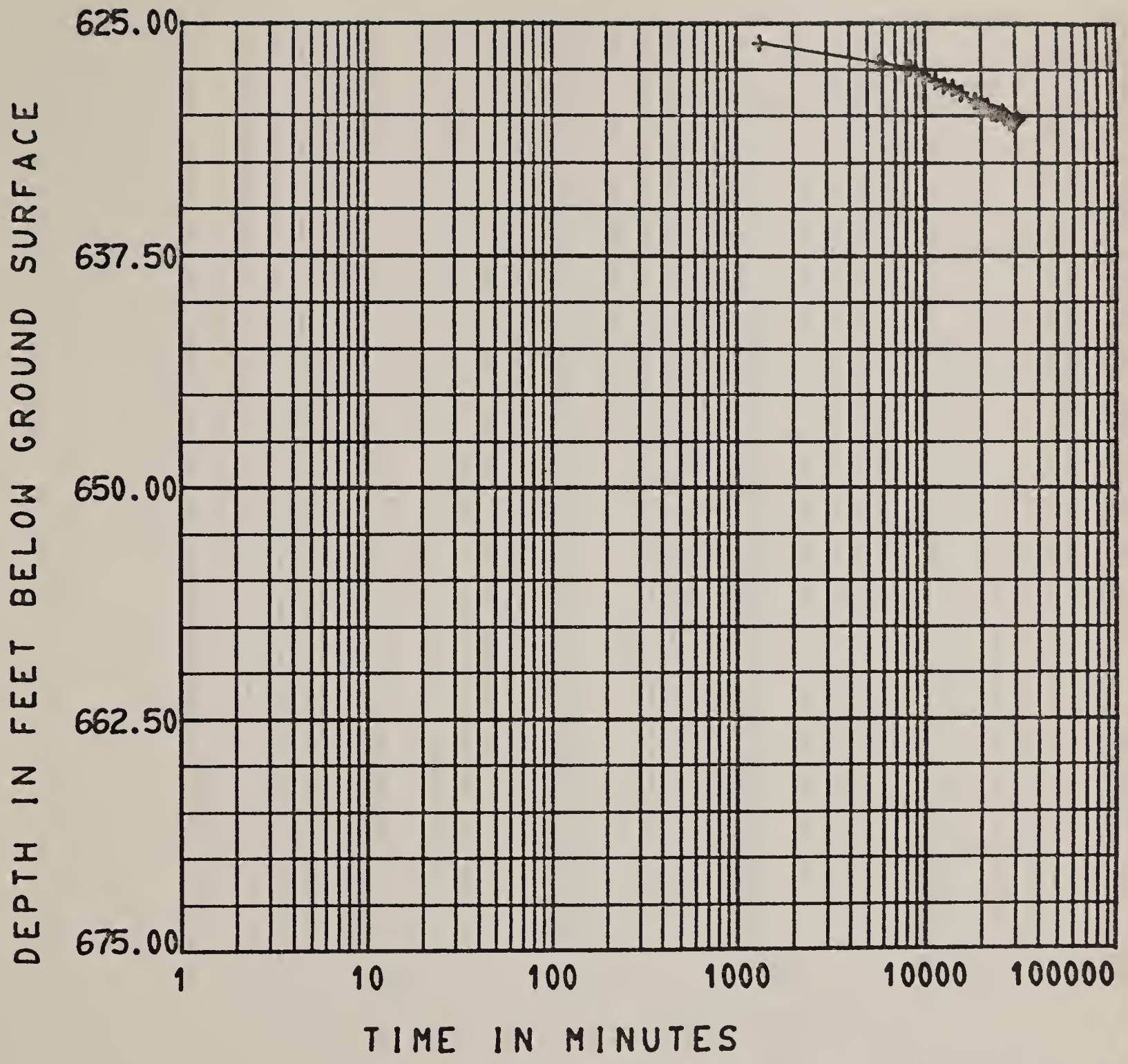
GS-6 GS-19 LOWR RECOVERY



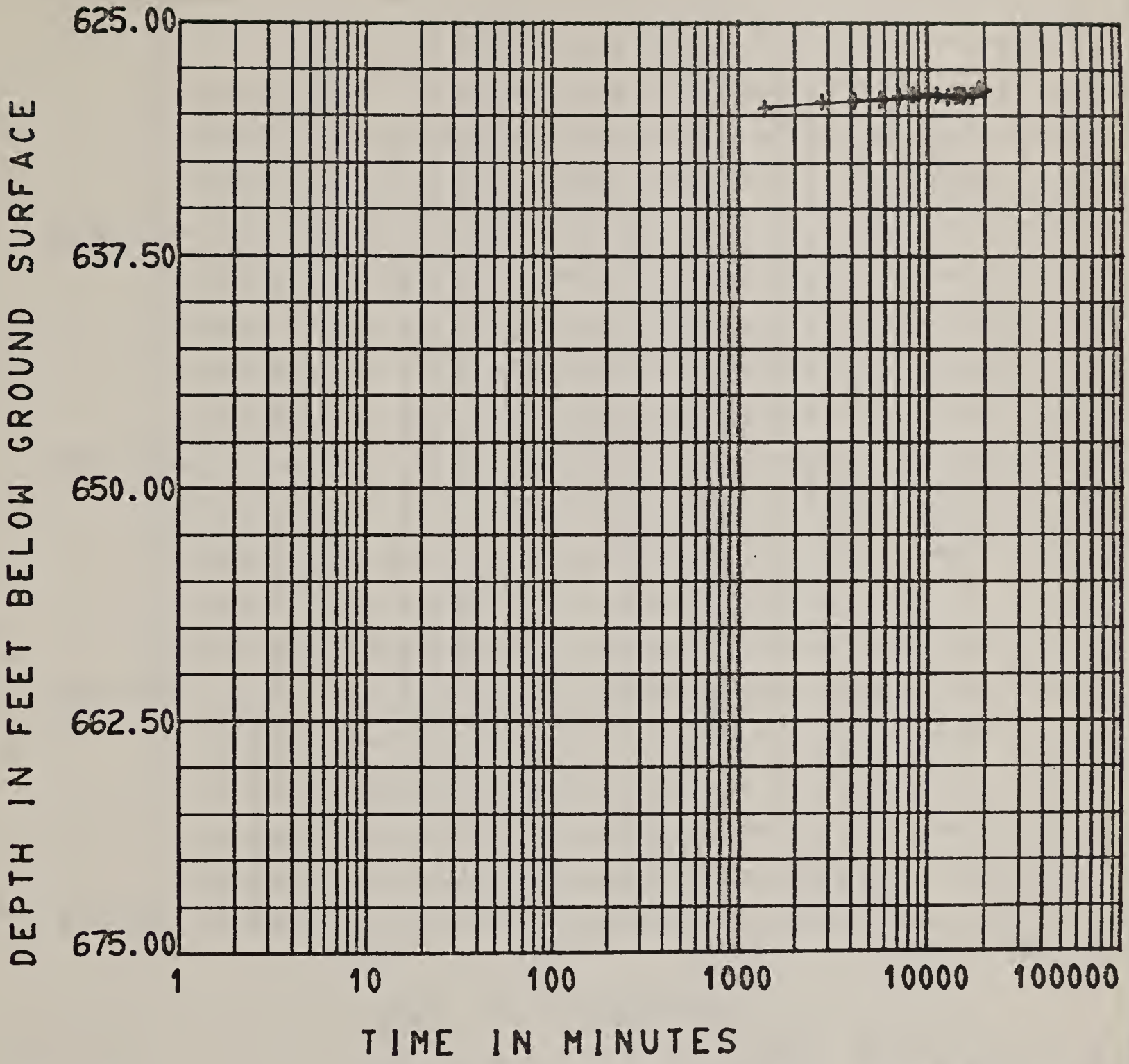
GS-6 GS-19 LOWR DRAWDOWN



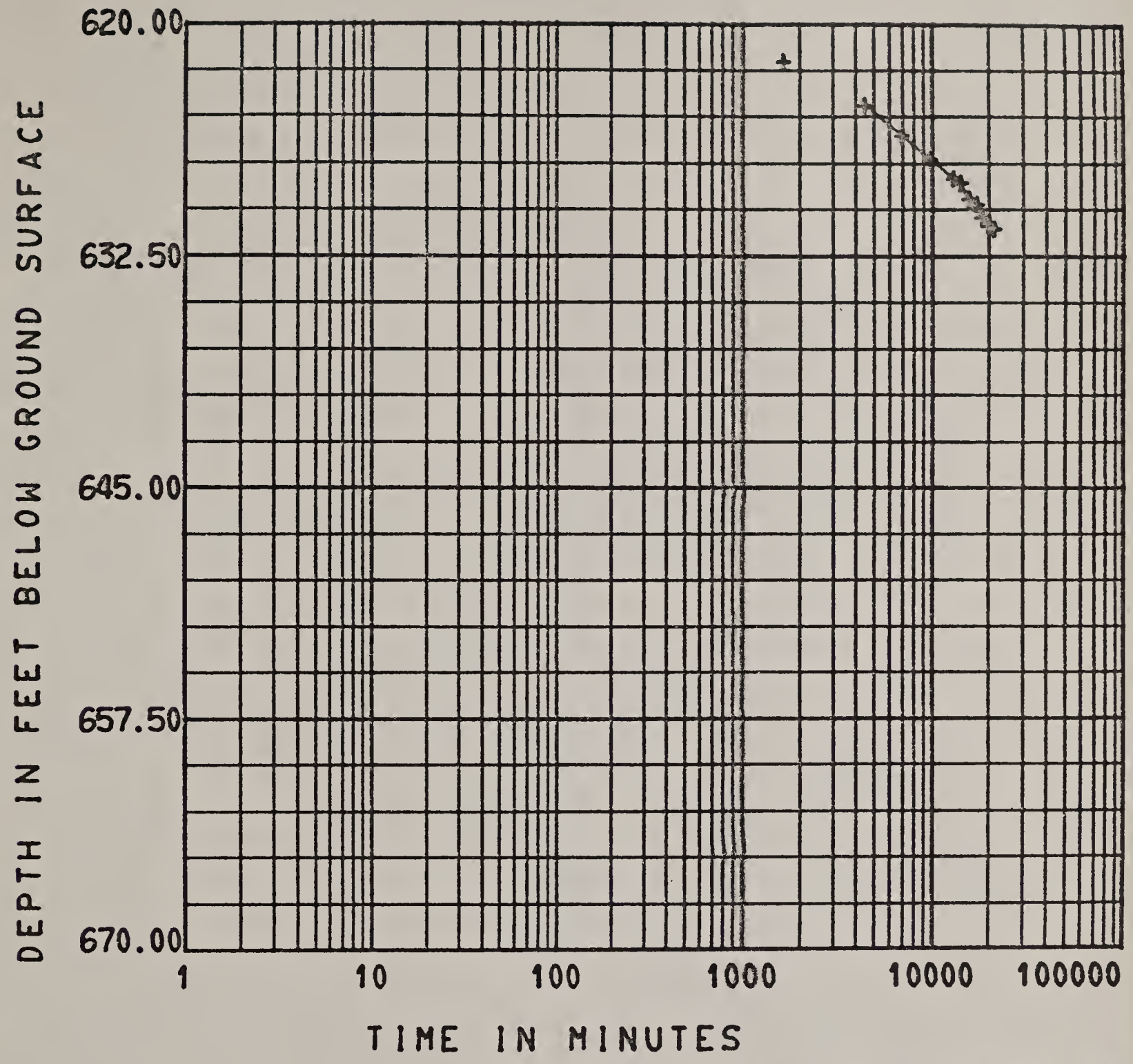
GS-6 GS-19 LOWR RECOVERY

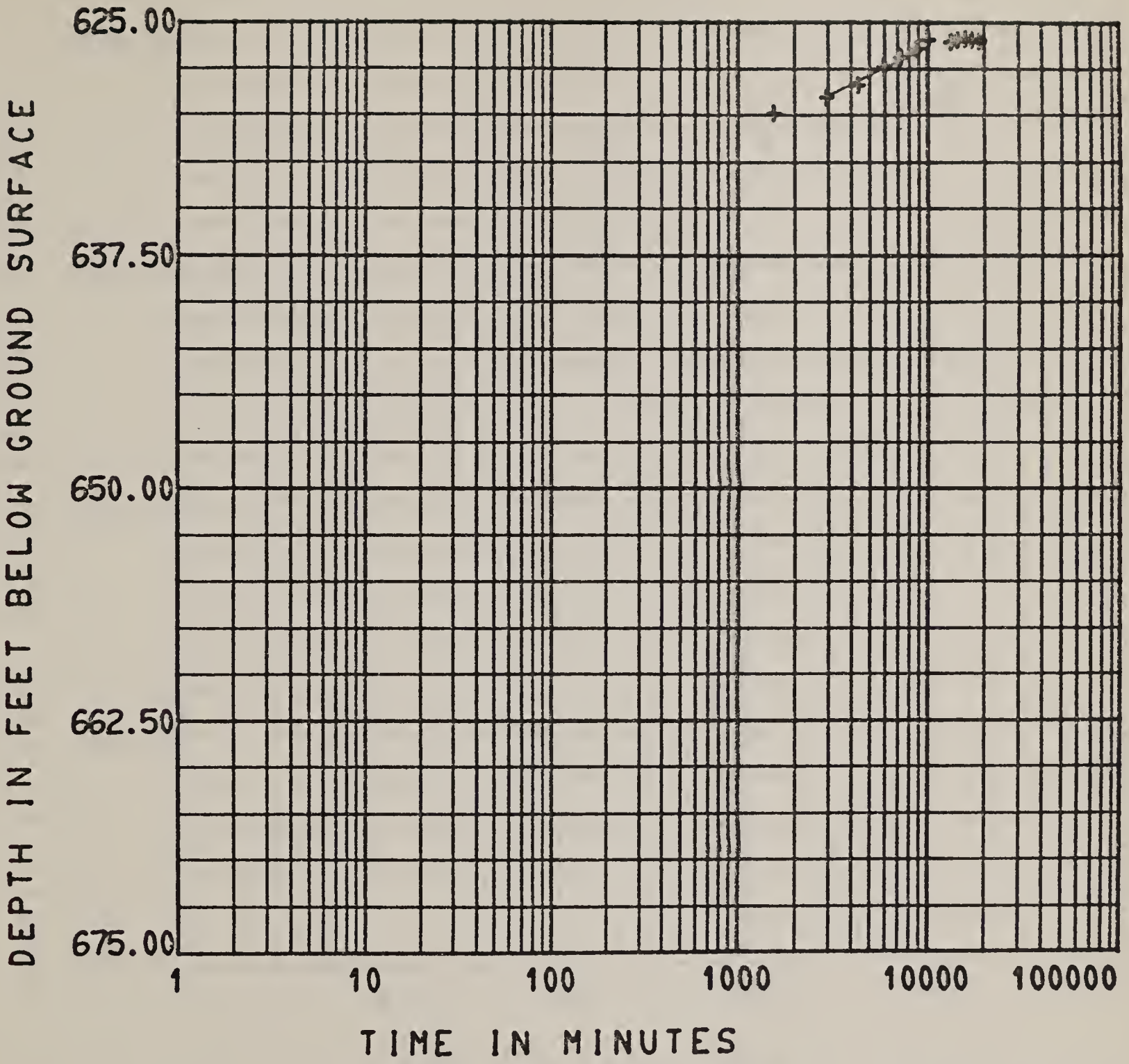


GS-8 GS-16 LOWR DRAWDOWN

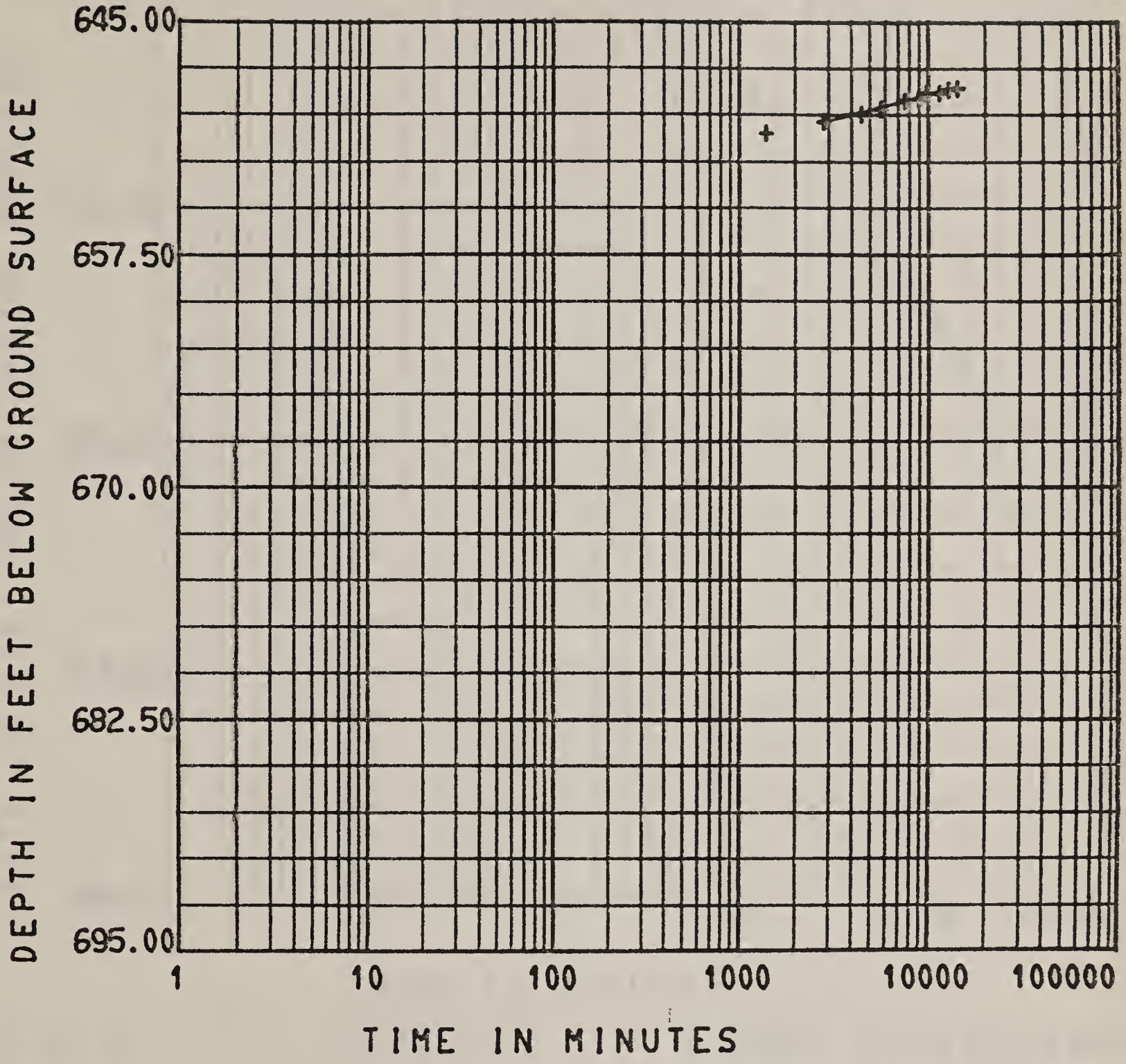


GS-8 GS-16 LOWR RECOVERY

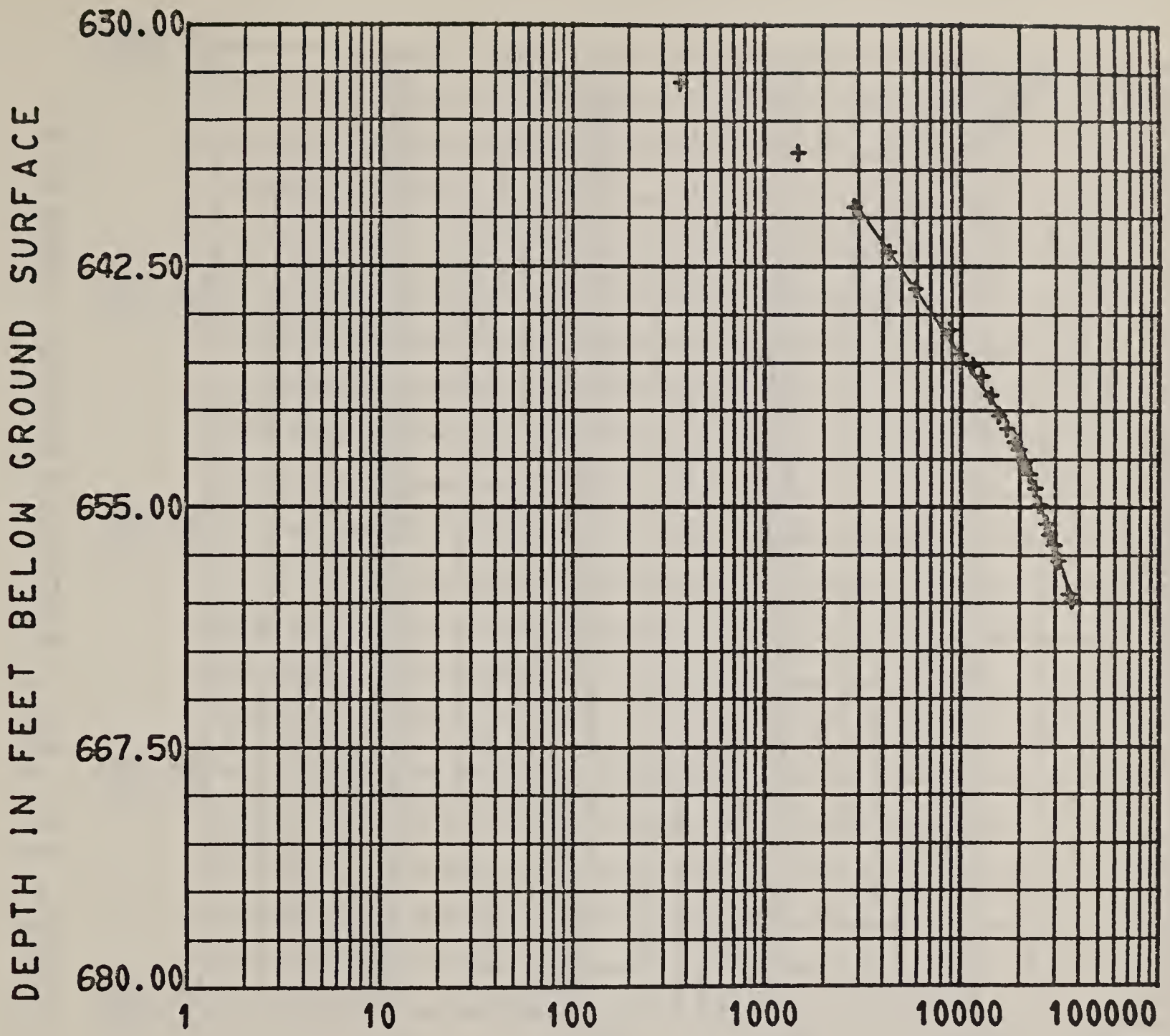

620.00
632.50
645.00
657.50
670.00
DEPTH IN FEET BELOW GROUND SURFACE
1
10
100
1000
10000
100000
TIME IN MINUTES
GS-8
GS-17
LOWR DRAWDOWN



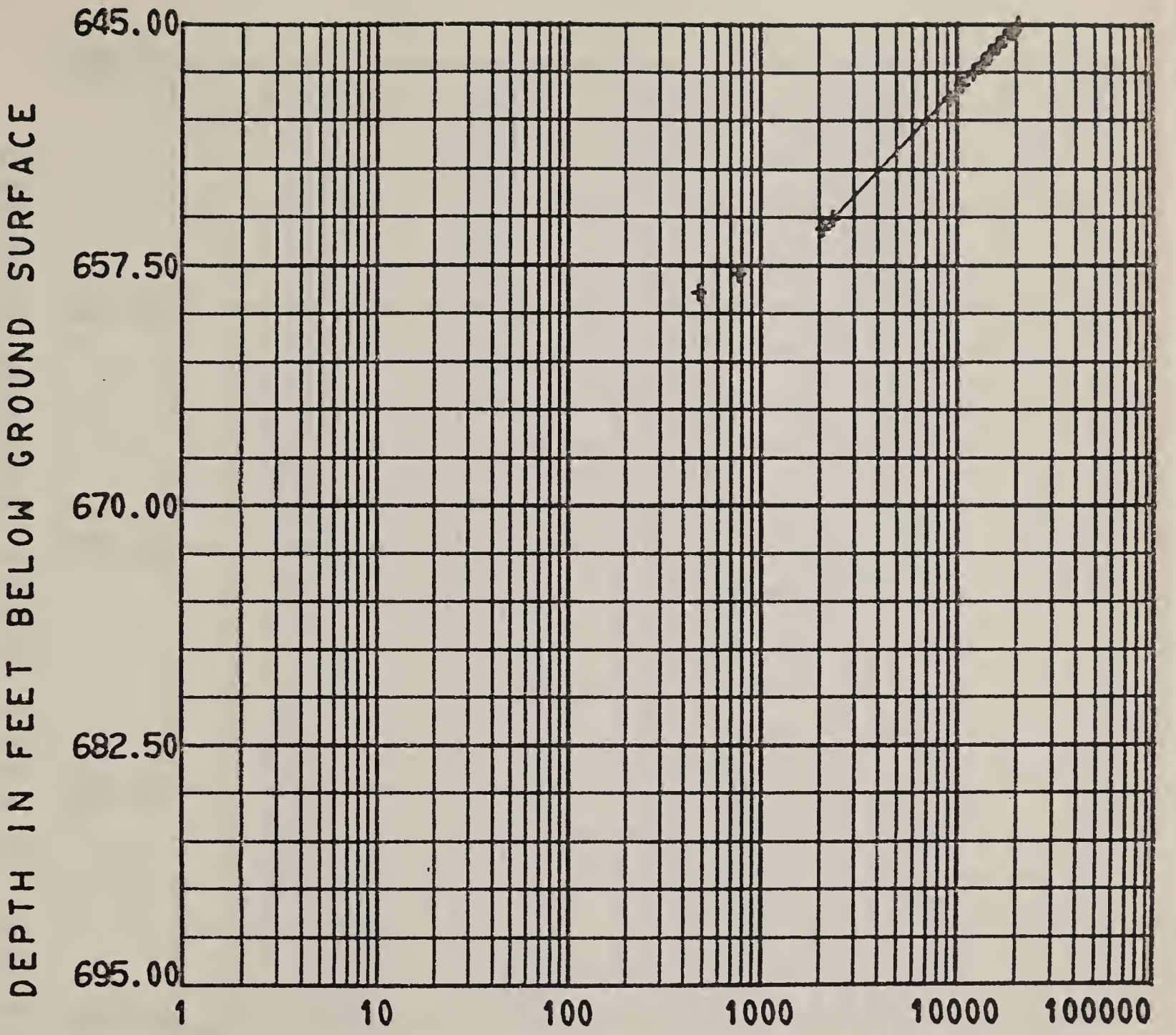
GS-8 GS-17 LOWR RECOVERY



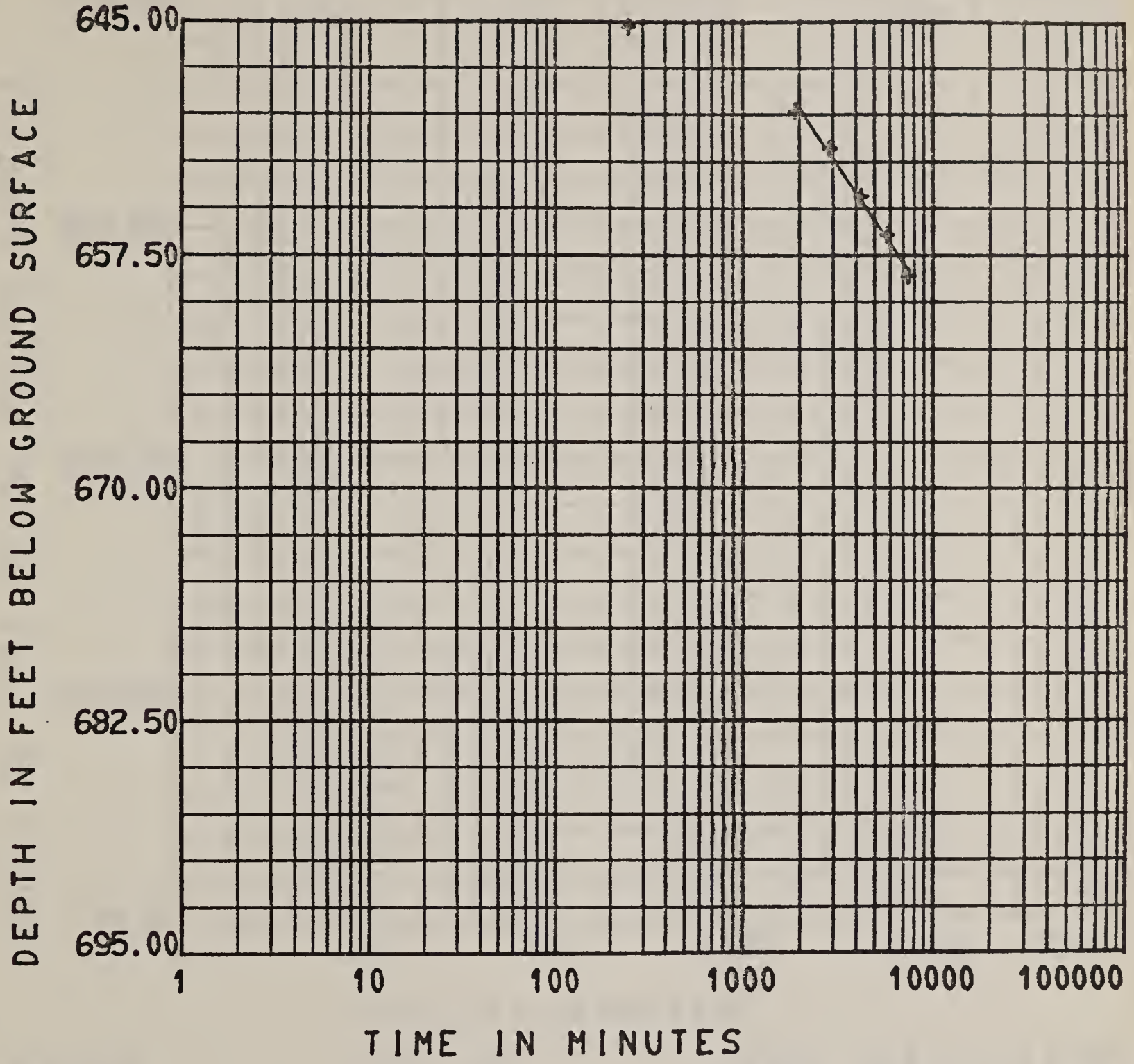
GS-8 GS-18 LOWR RECOVERY



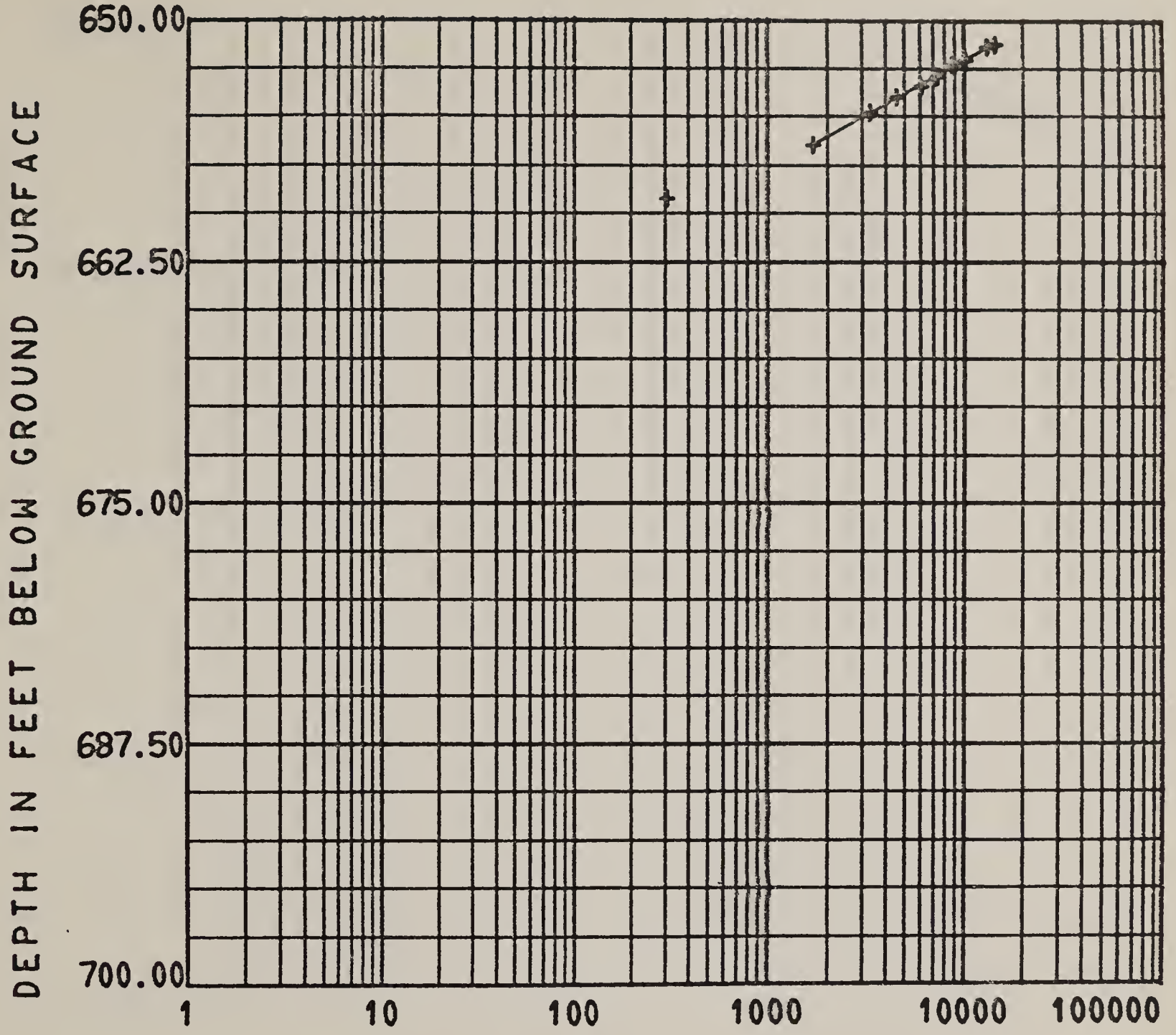
GS-8 GS-19 LOWR DRAWDOWN



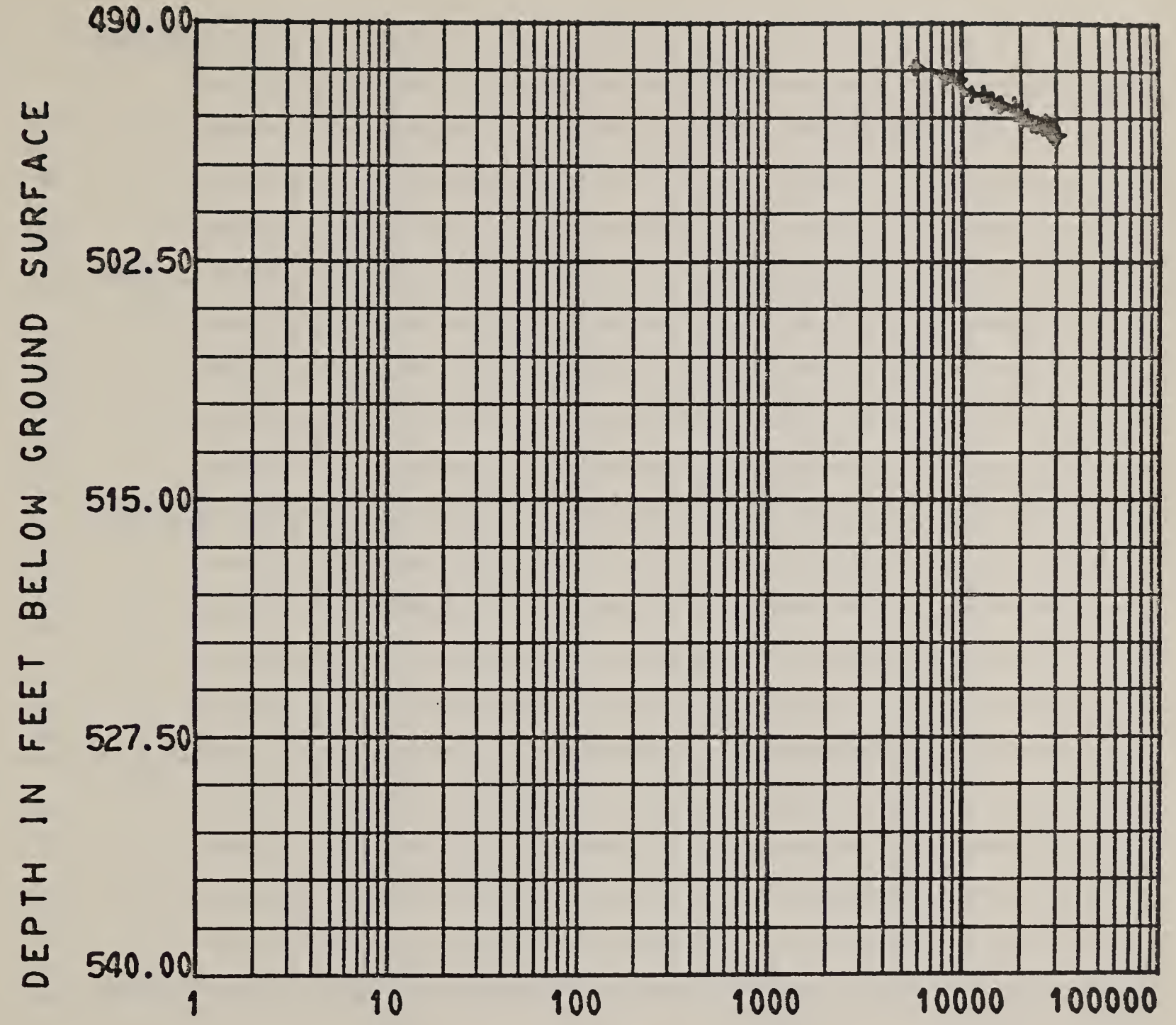
GS-8 GS-19 LOWR RECOVERY

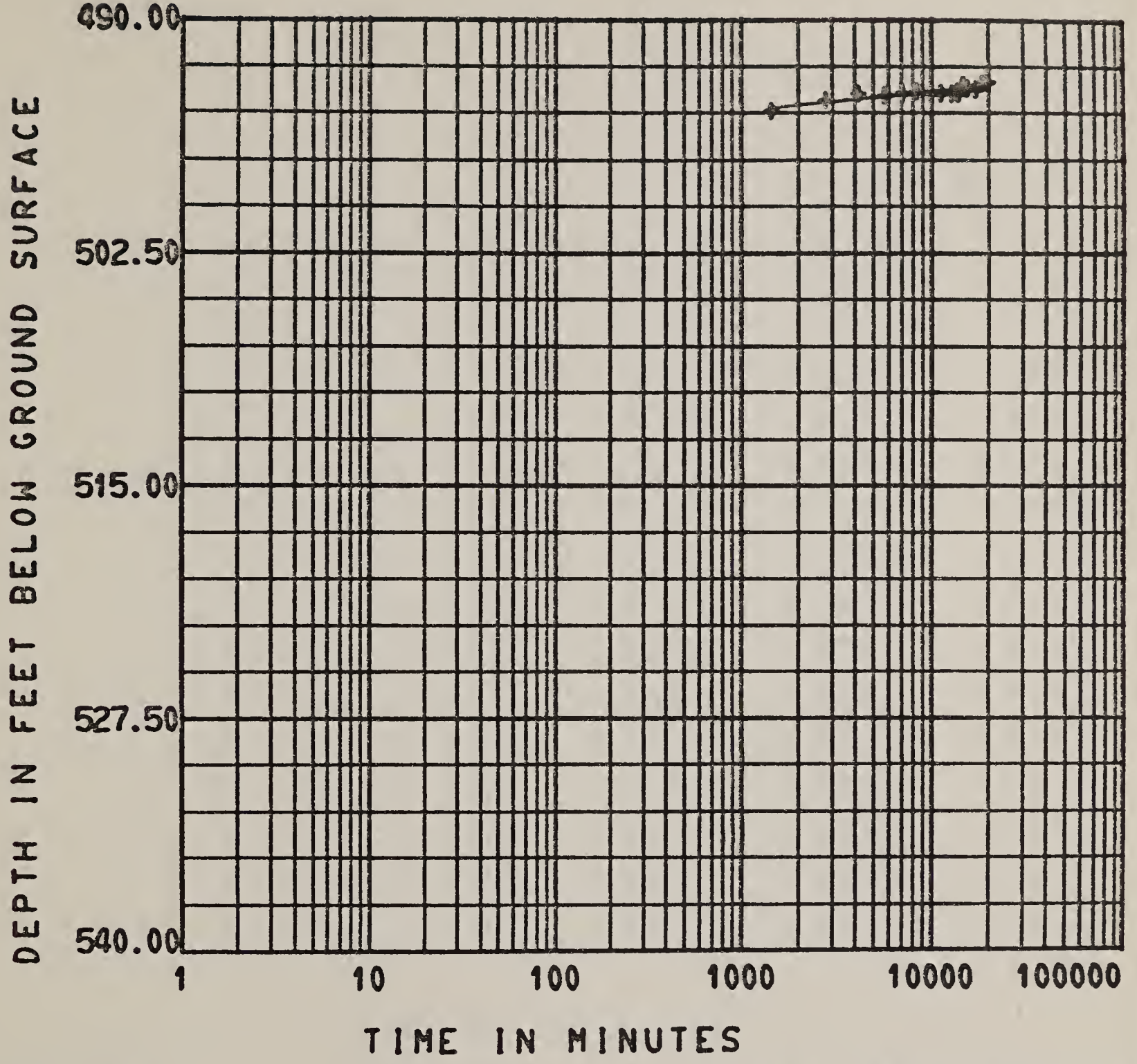


GS-8 GS-19 LOWR DRAWDOWN

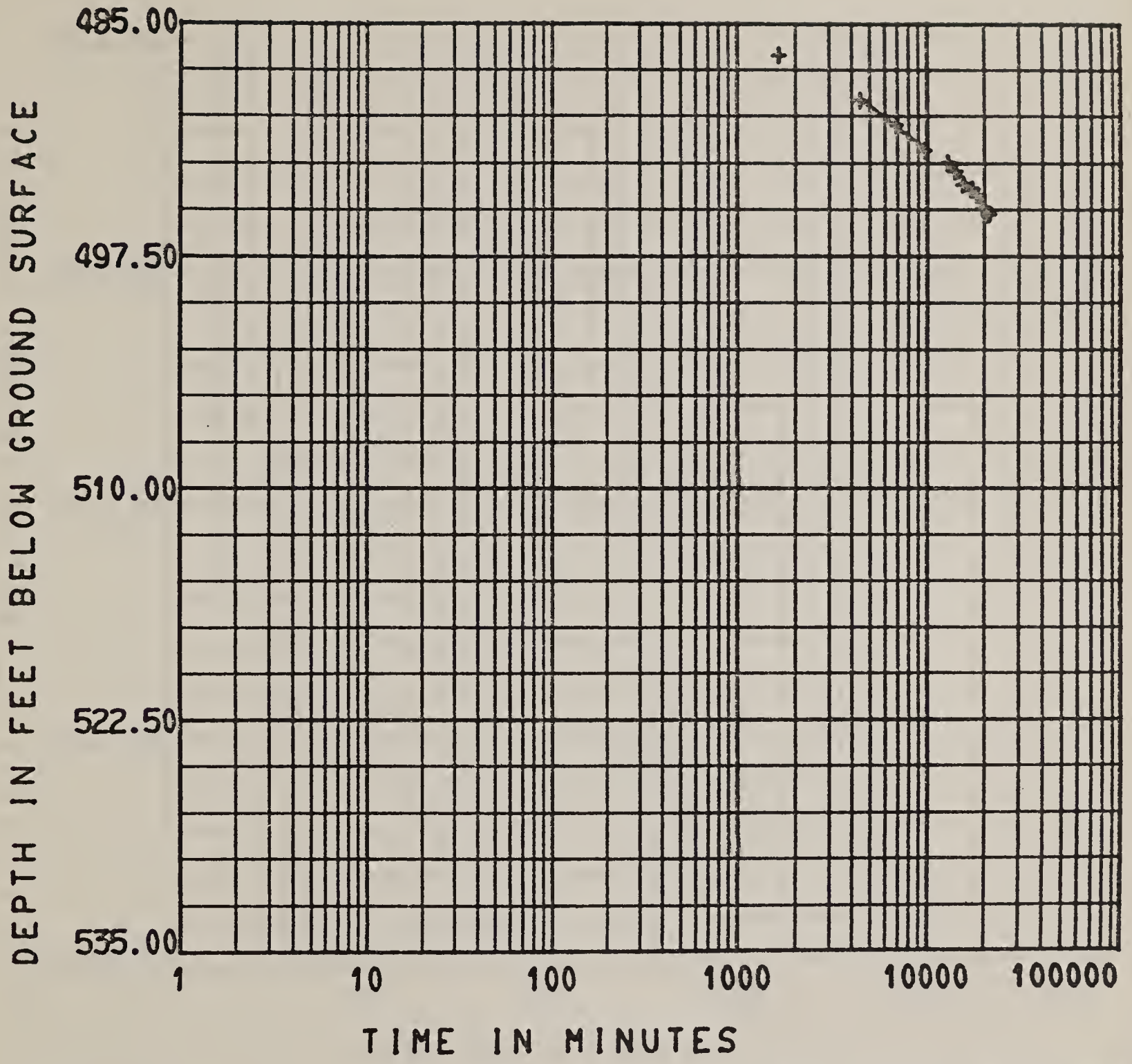


GS-8 GS-19 LOWR RECOVERY

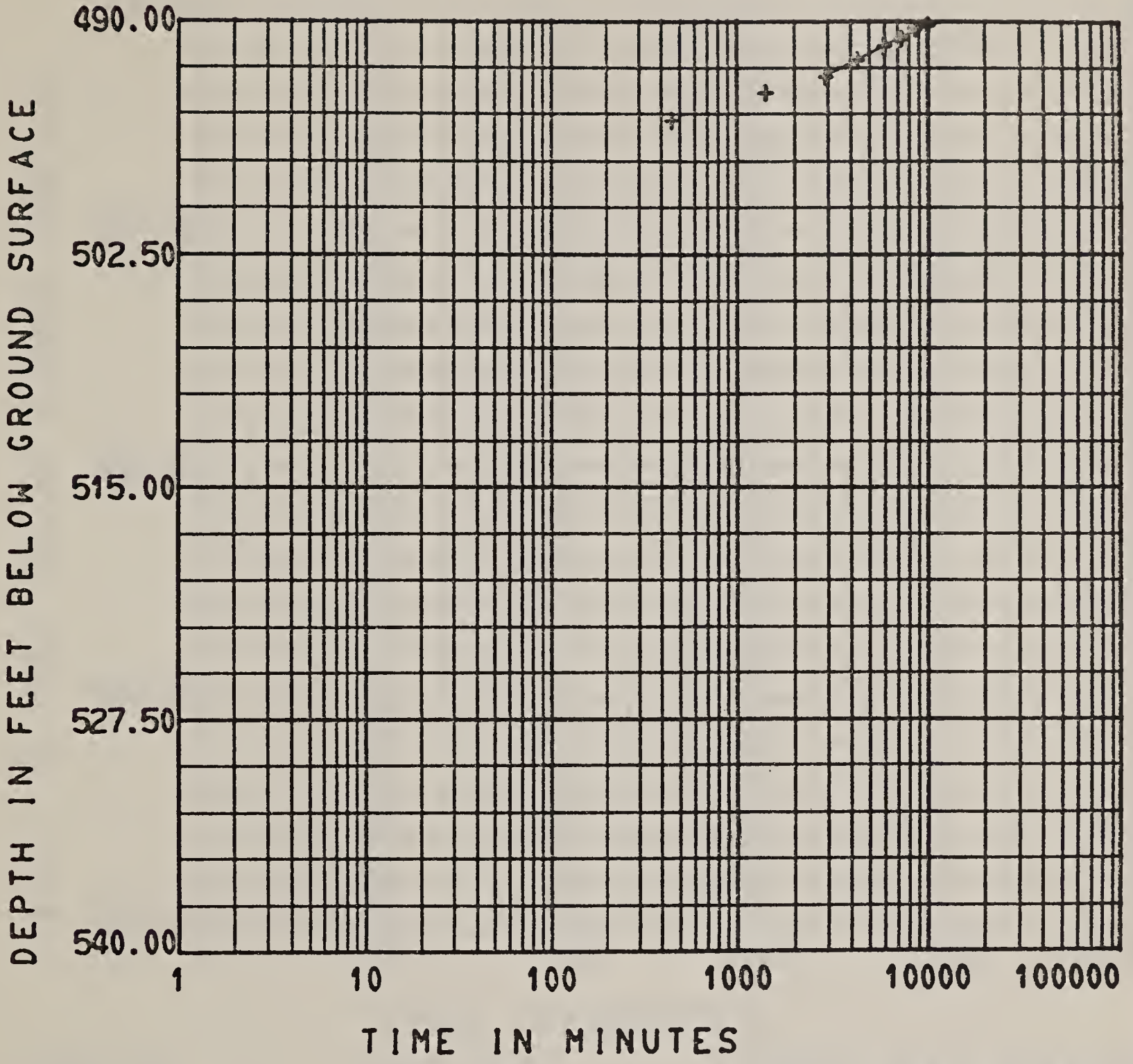

490.00
502.50
515.00
527.50
540.00
DEPTH IN FEET BELOW GROUND SURFACE
1
10
100
1000
10000
100000
TIME IN MINUTES
GS-9
GS-16
LOWR DRAWDOWN



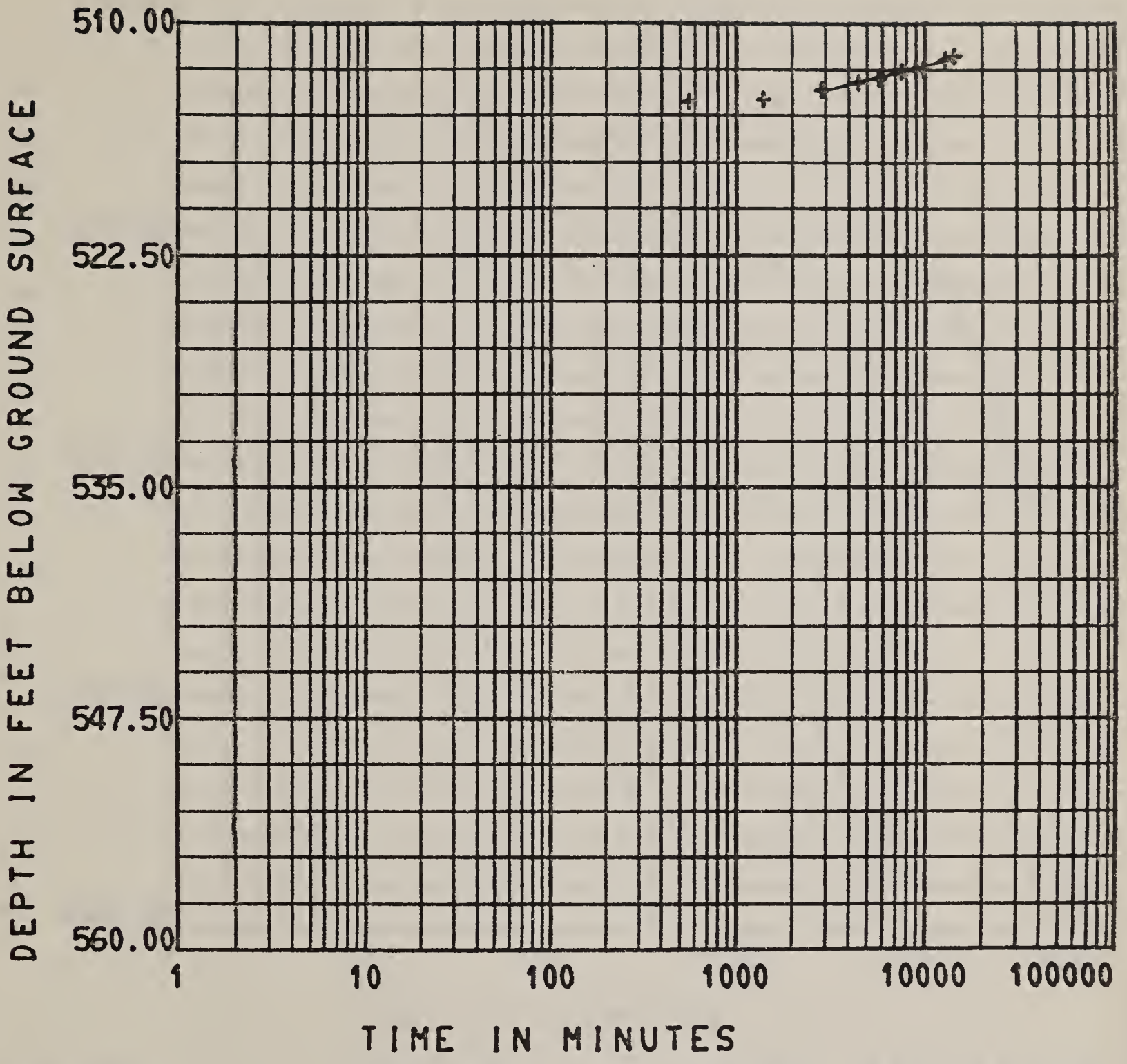
GS-9 GS-16 LOWR RECOVERY



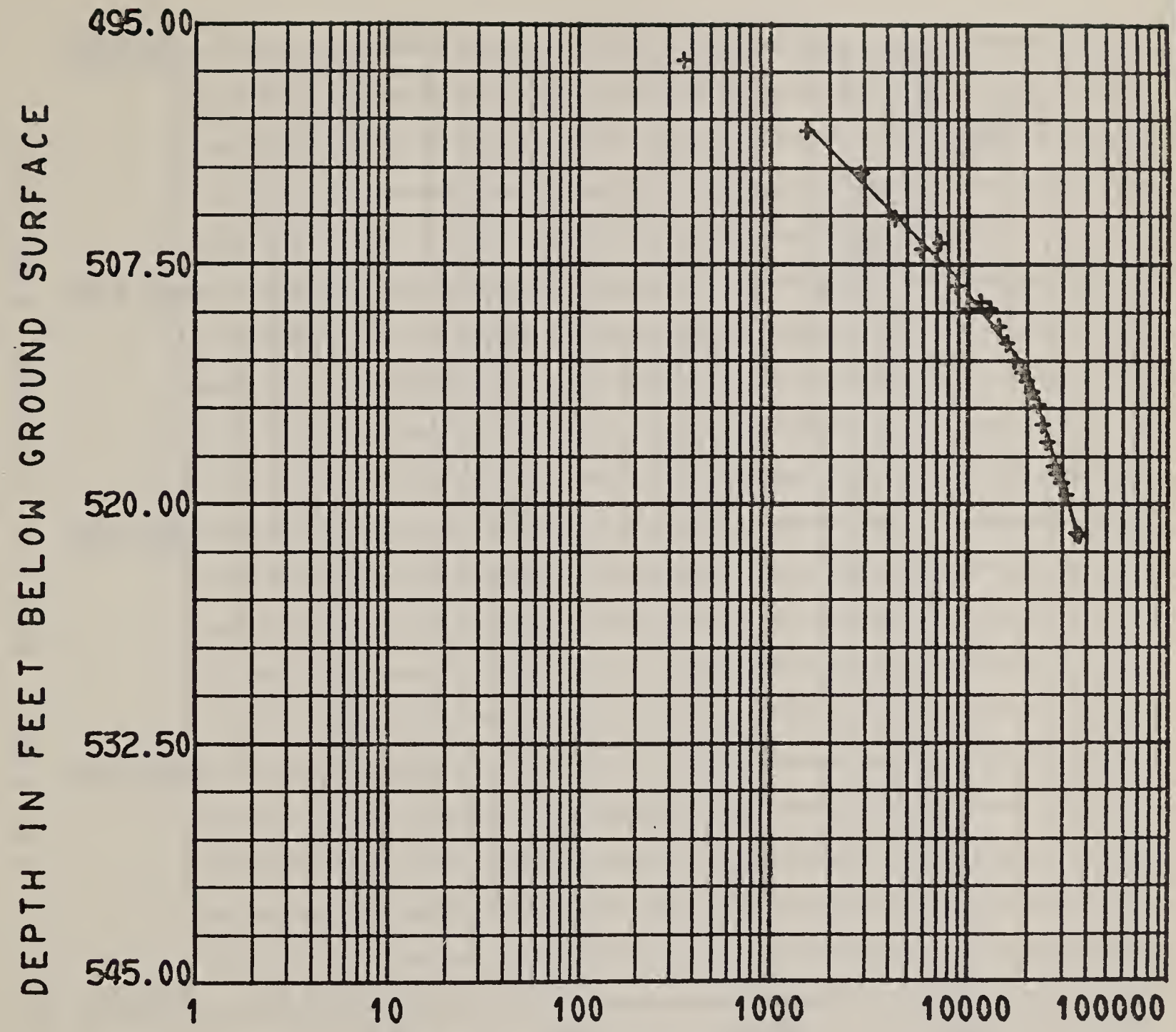
GS-9 GS-17 LOWR DRAWDOWN



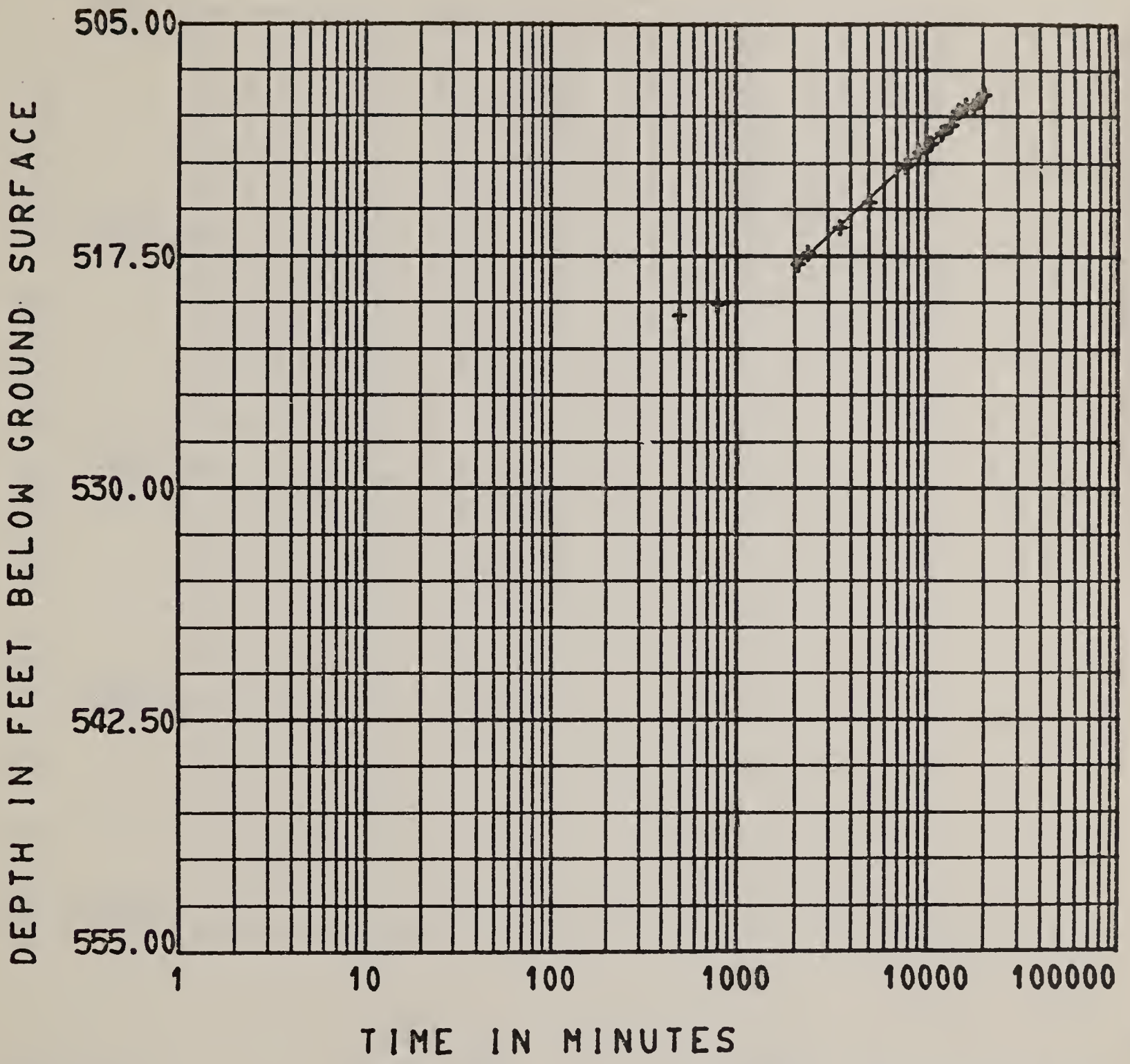
GS-9 GS-17 LOWR RECOVERY



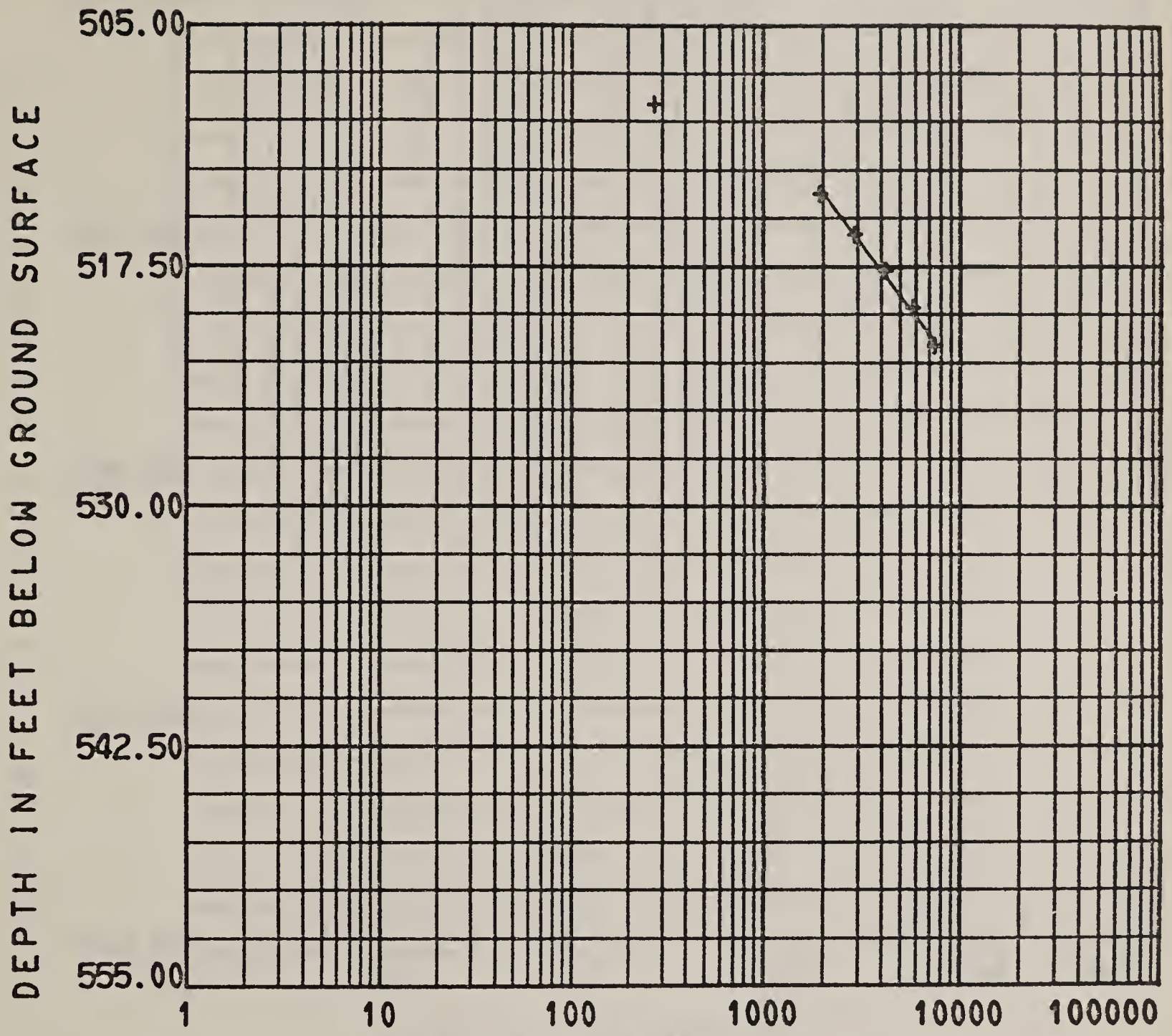
GS-9 GS-18 LOWR RECOVERY



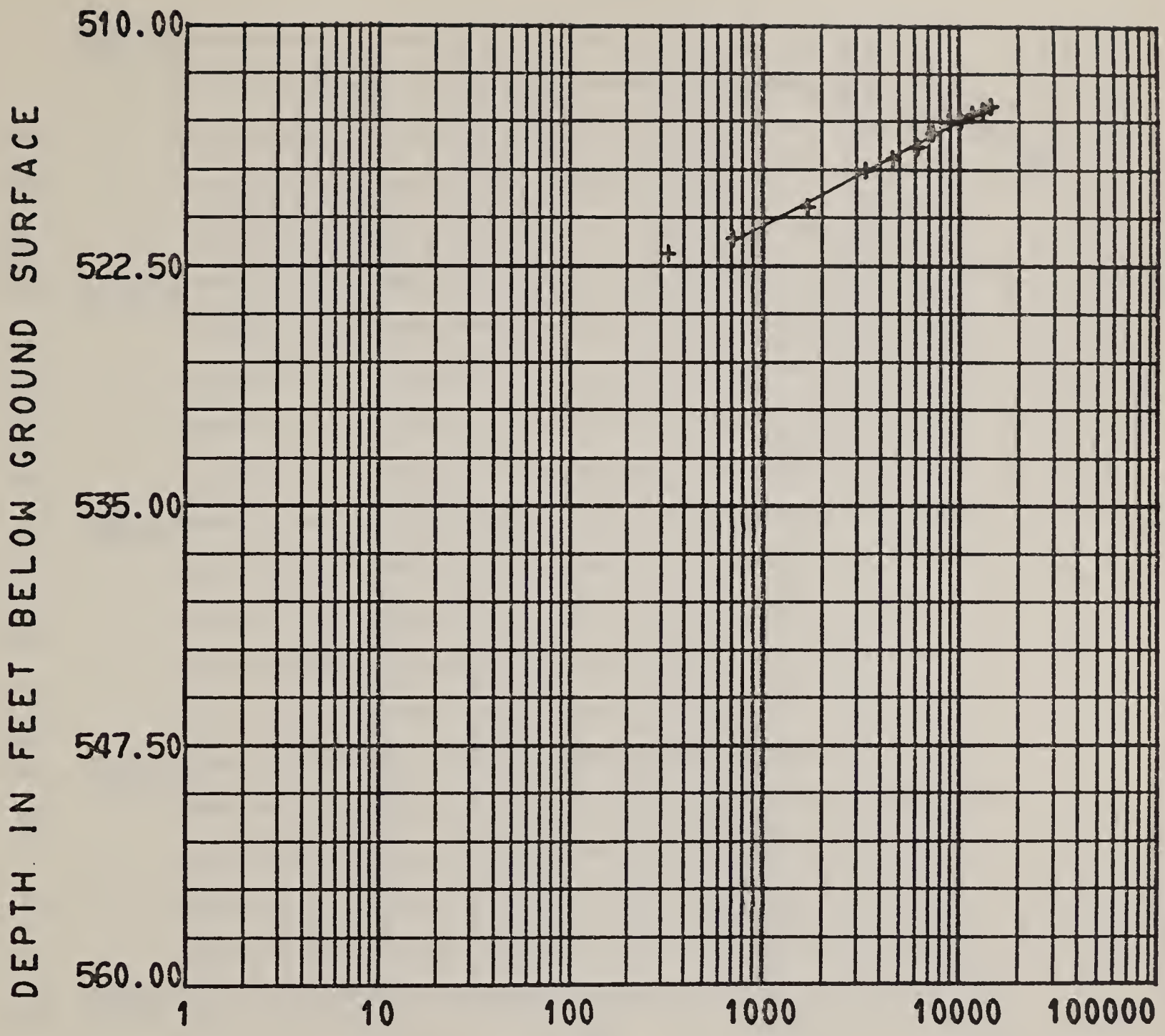
GS-9 GS-19 LOWR DRAWDOWN



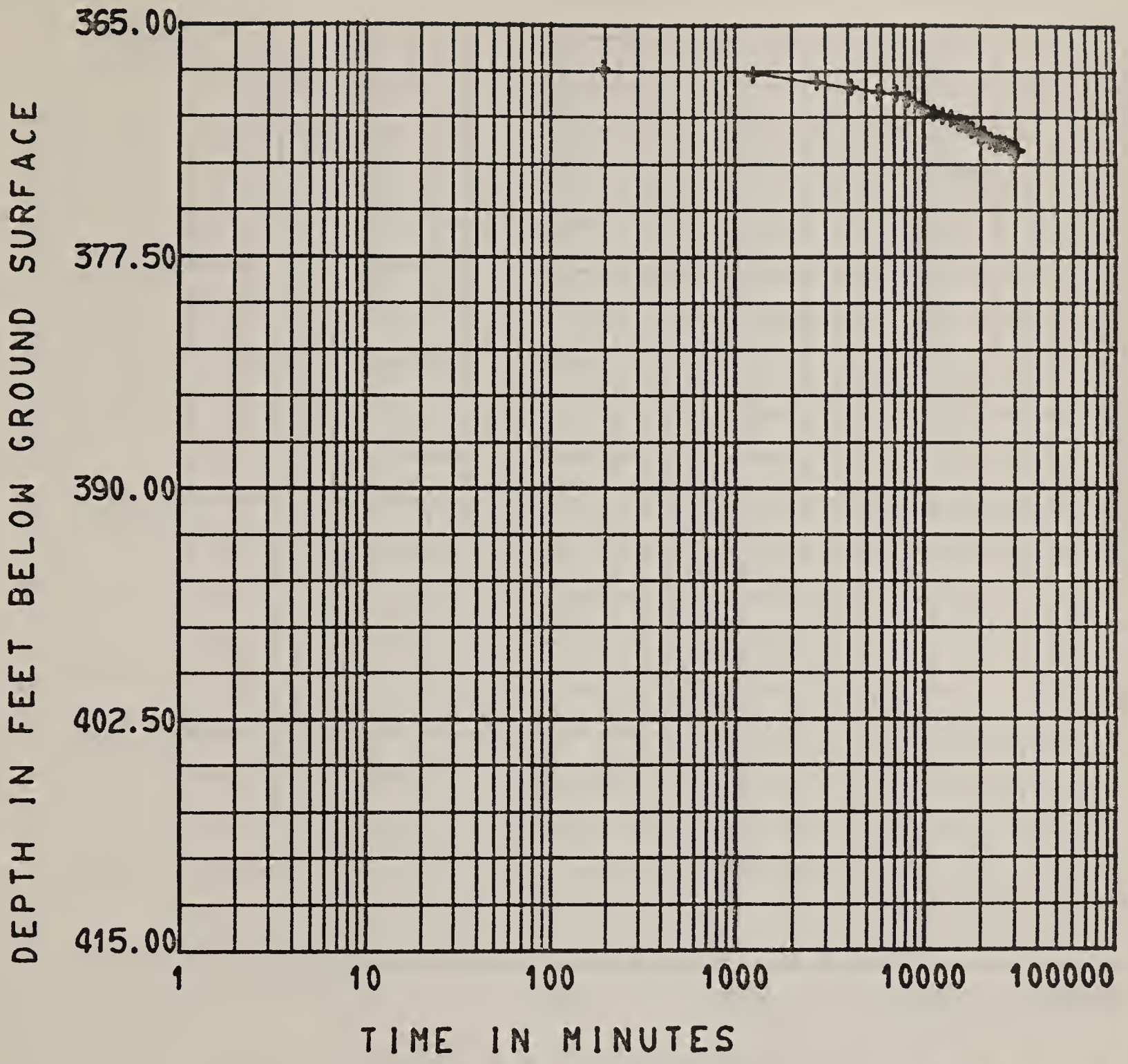
GS-9 GS-19 LOWR RECOVERY



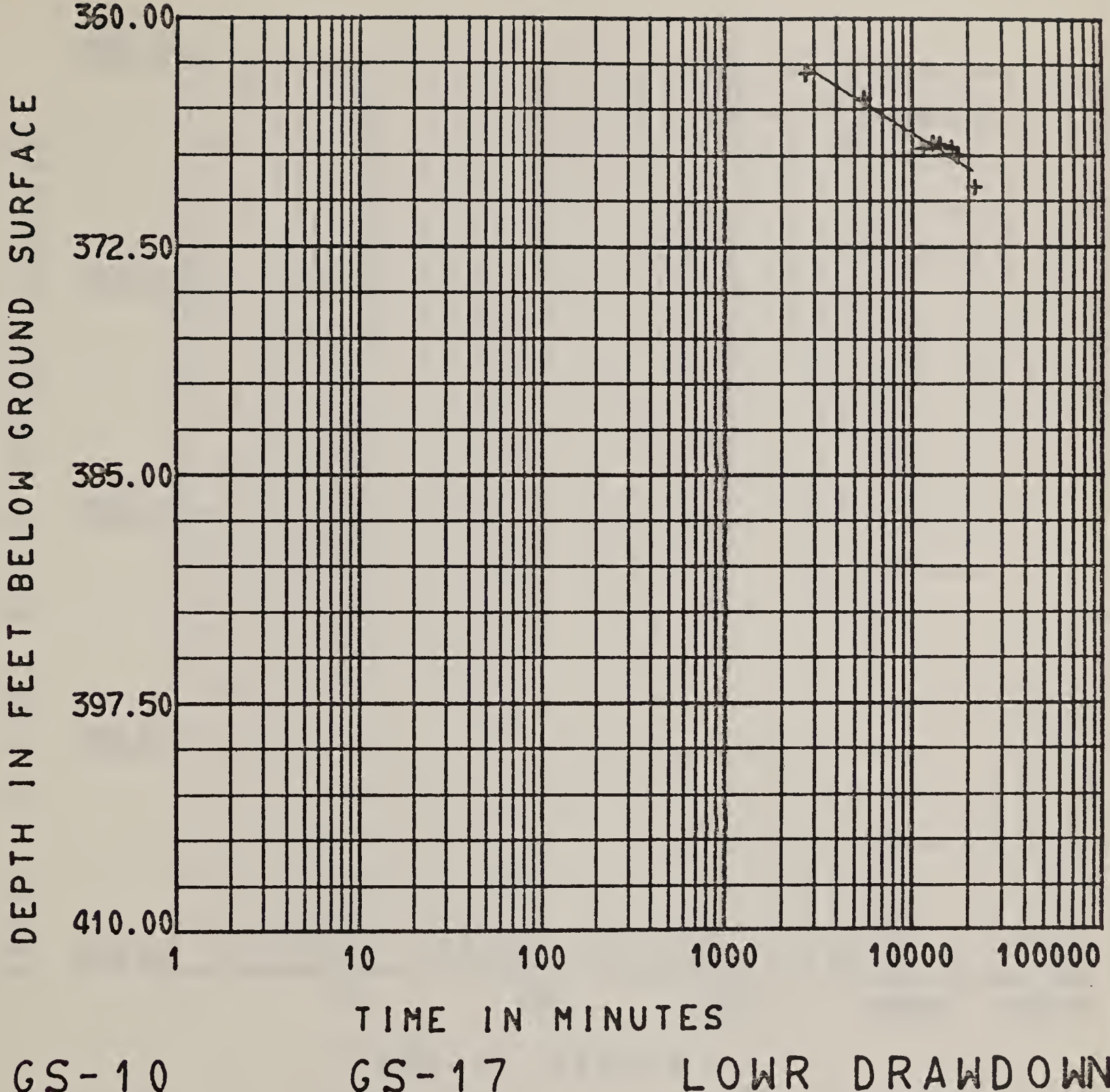
GS-9 GS-19 LOWR DRAWDOWN

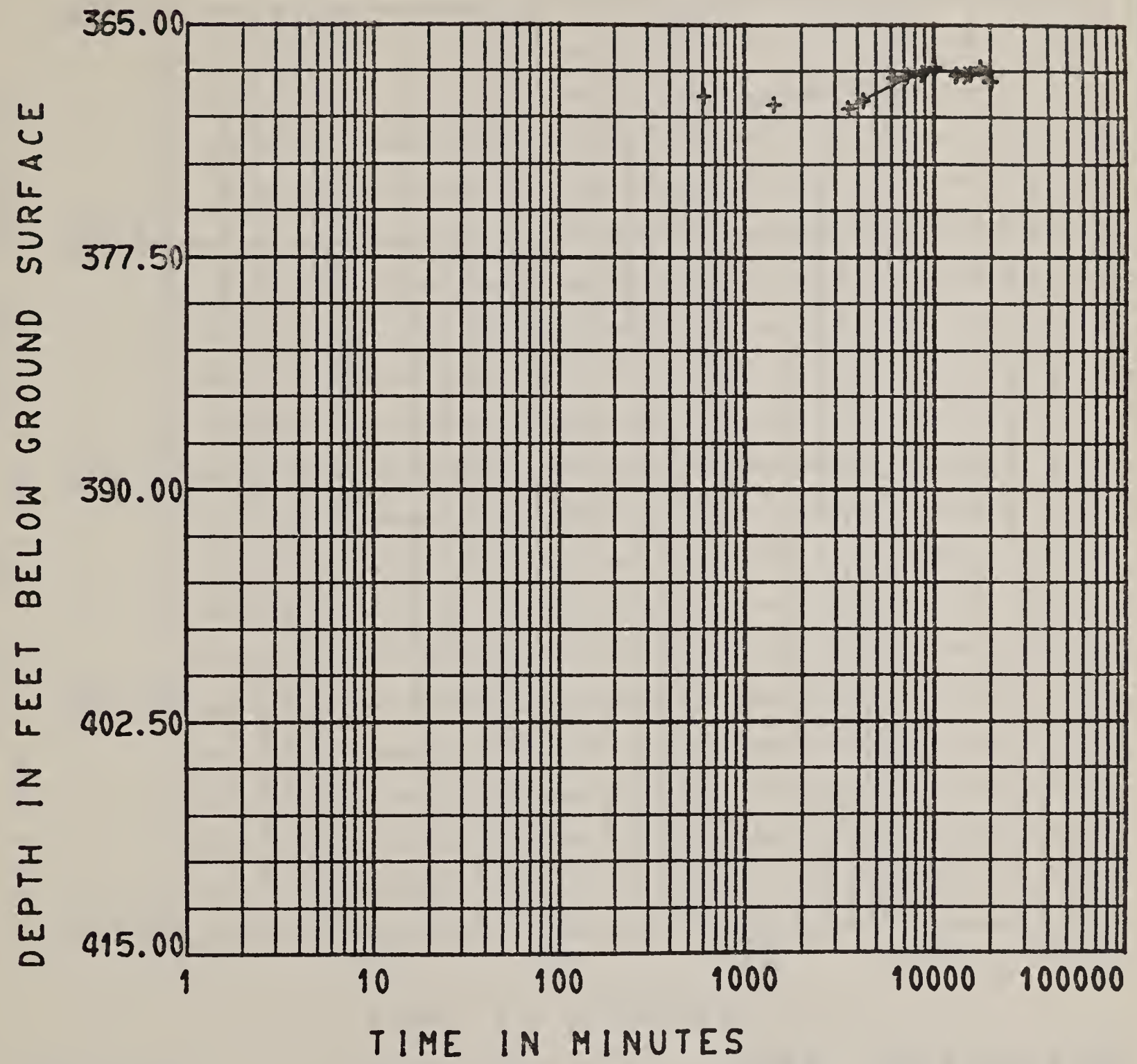


GS-9 GS-19 LOWR RECOVERY

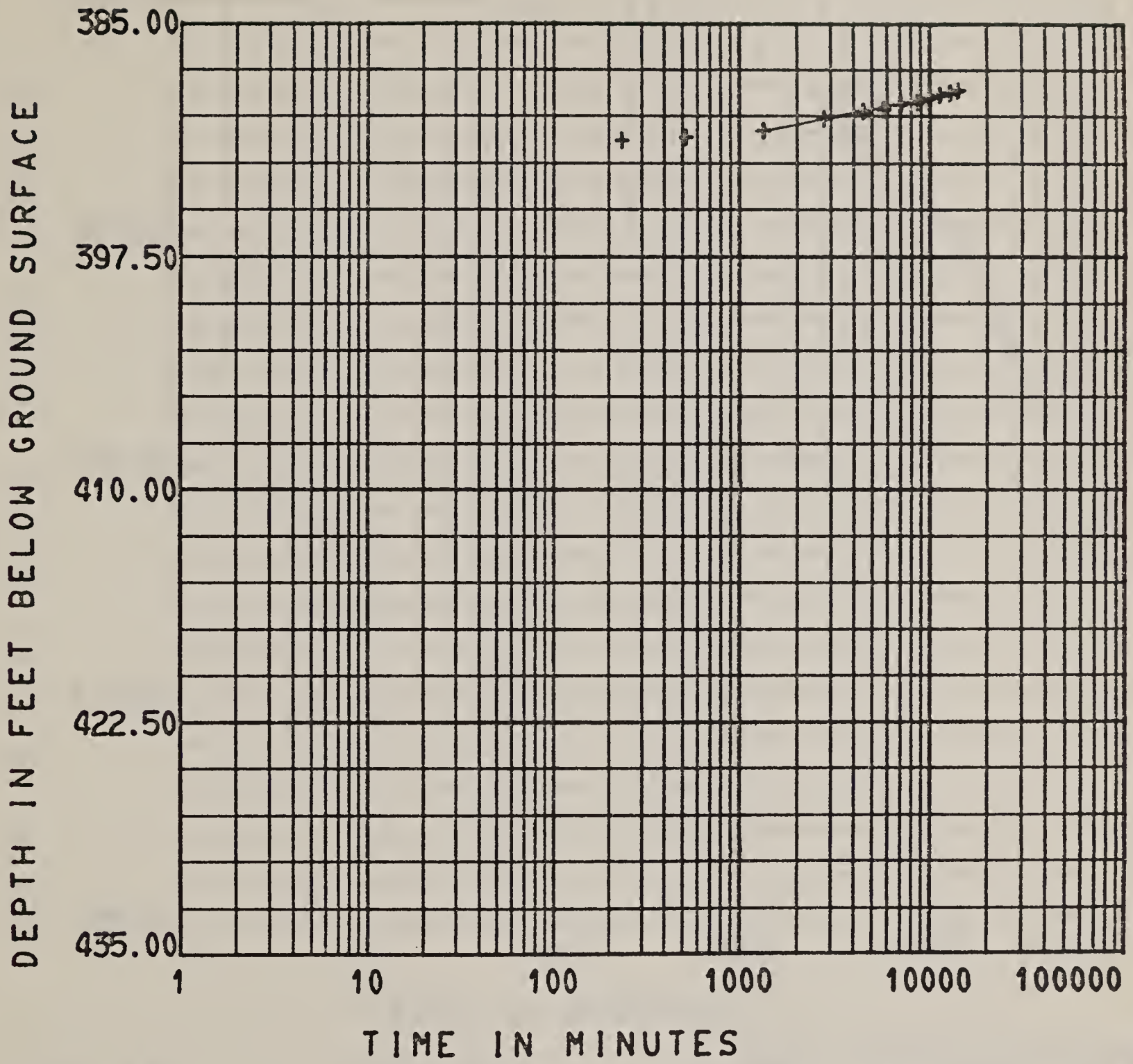


GS-10 GS-16 LOWR DRAWDOWN

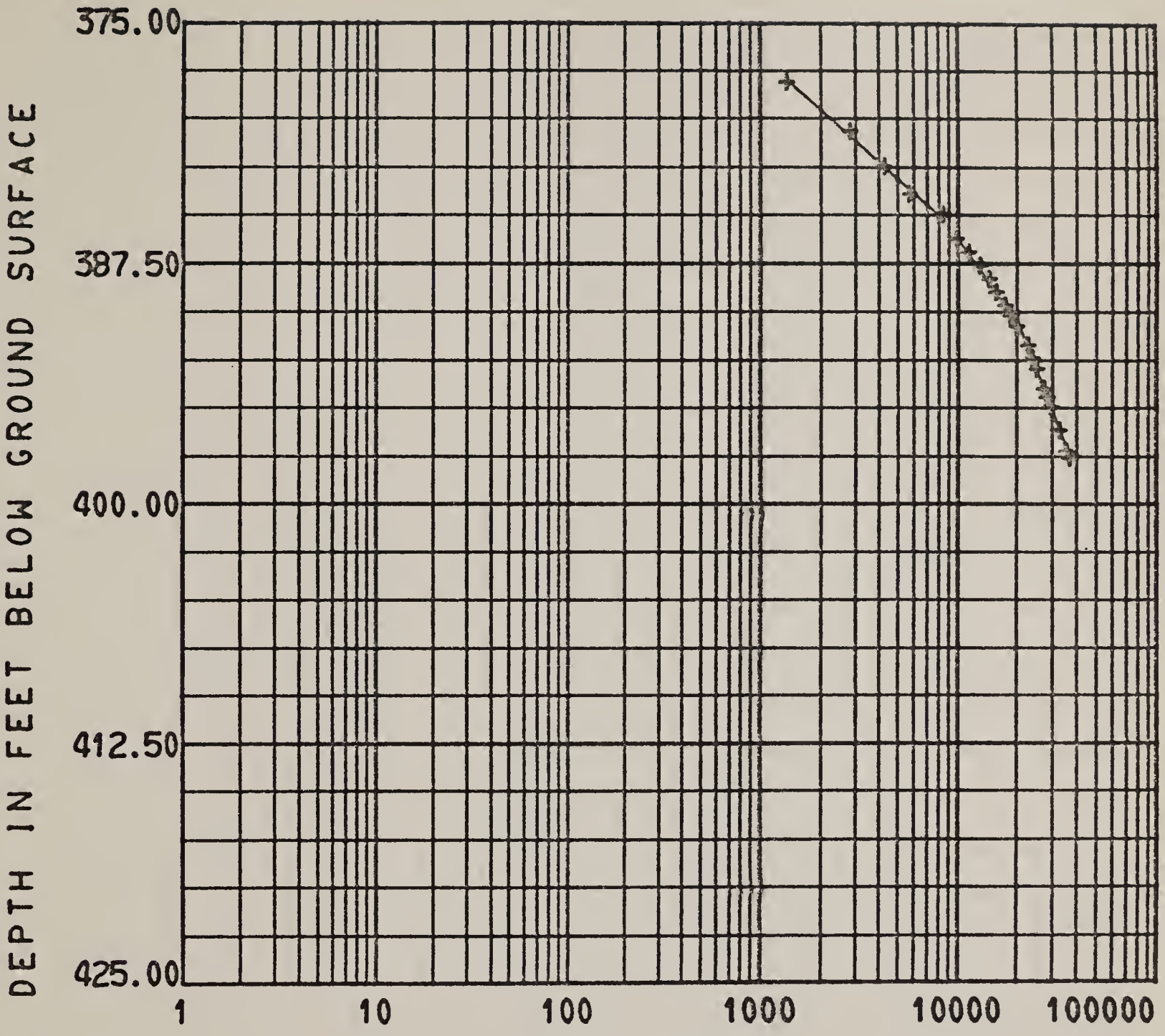

360.00
372.50
385.00
397.50
410.00
DEPTH IN FEET BELOW GROUND SURFACE
1
10
100
1000
10000
100000
TIME IN MINUTES
GS-10
GS-17
LOWR DRAWDOWN



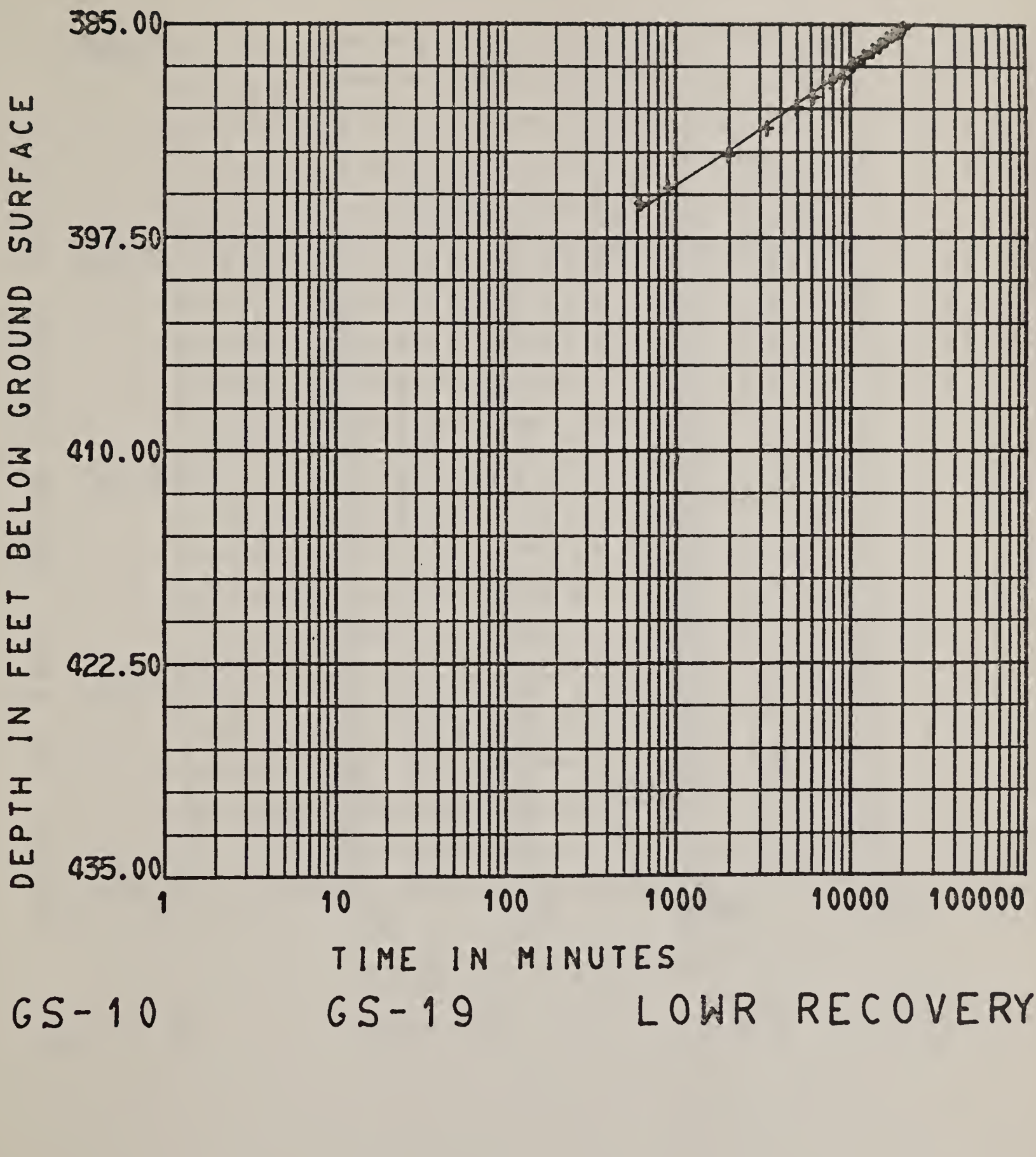
GS-10 GS-17 LOWR RECOVERY



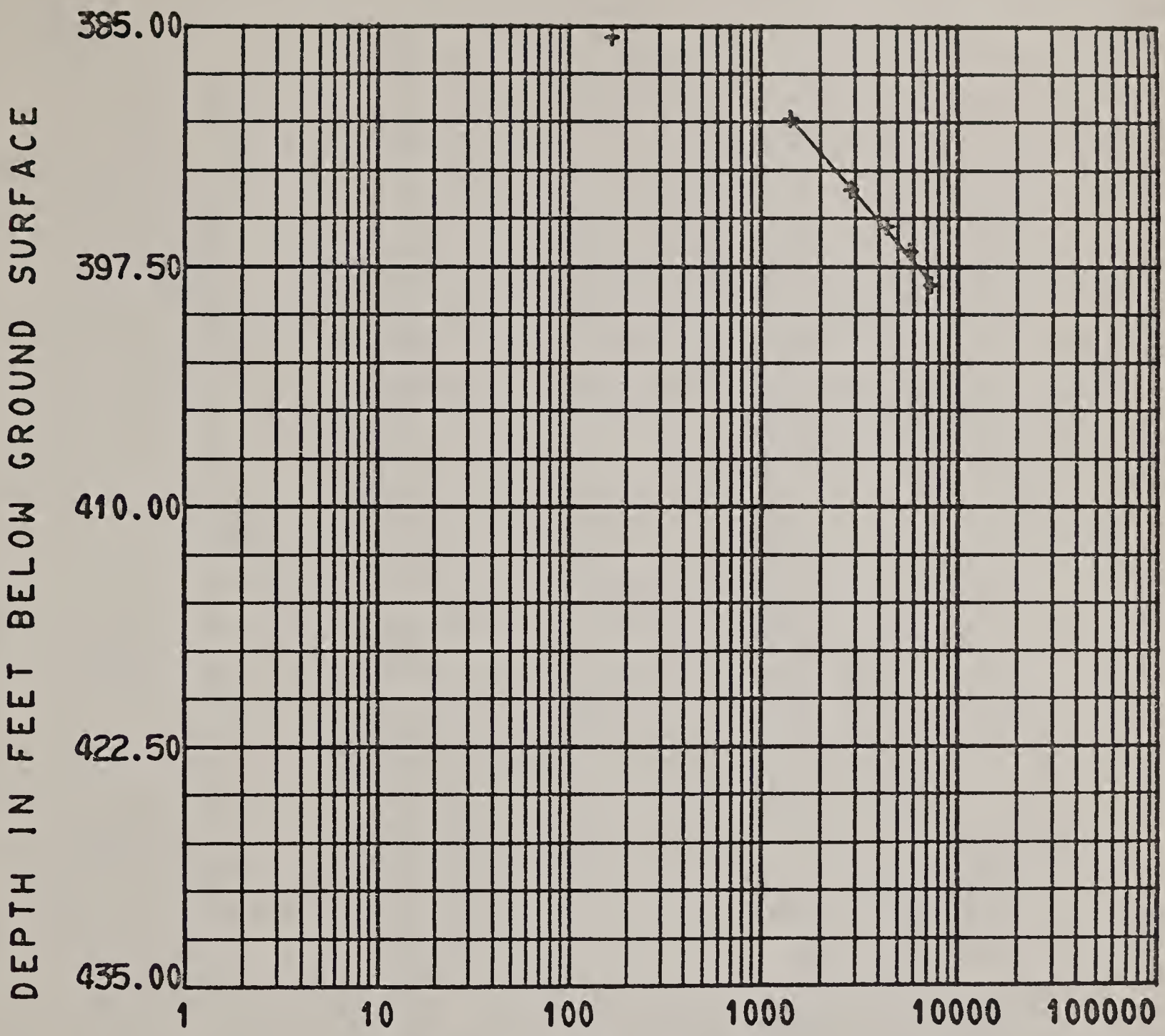
GS-10 GS-18 LOWR RECOVERY



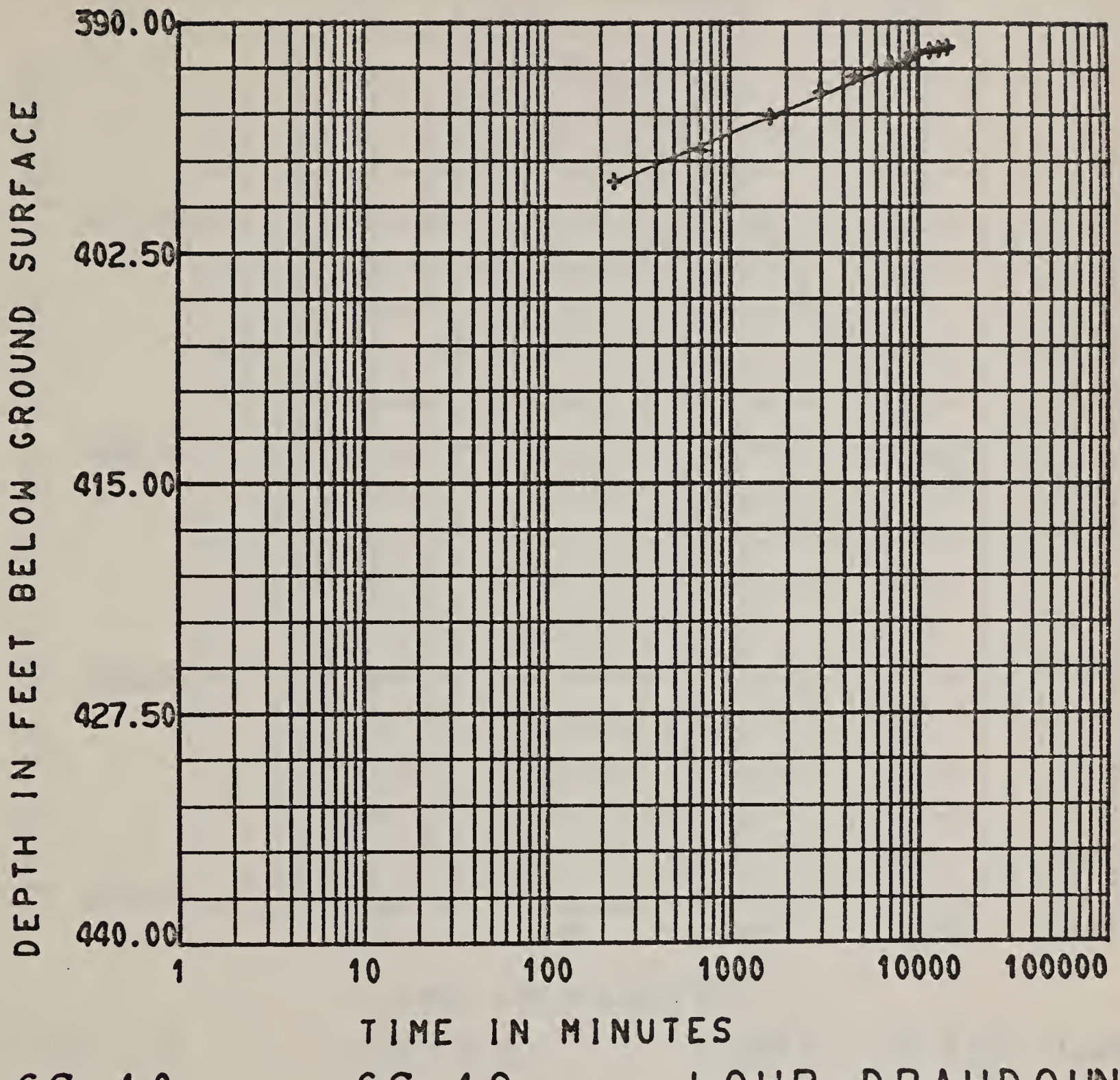
GS-10 GS-19 LOWR DRAWDOWN



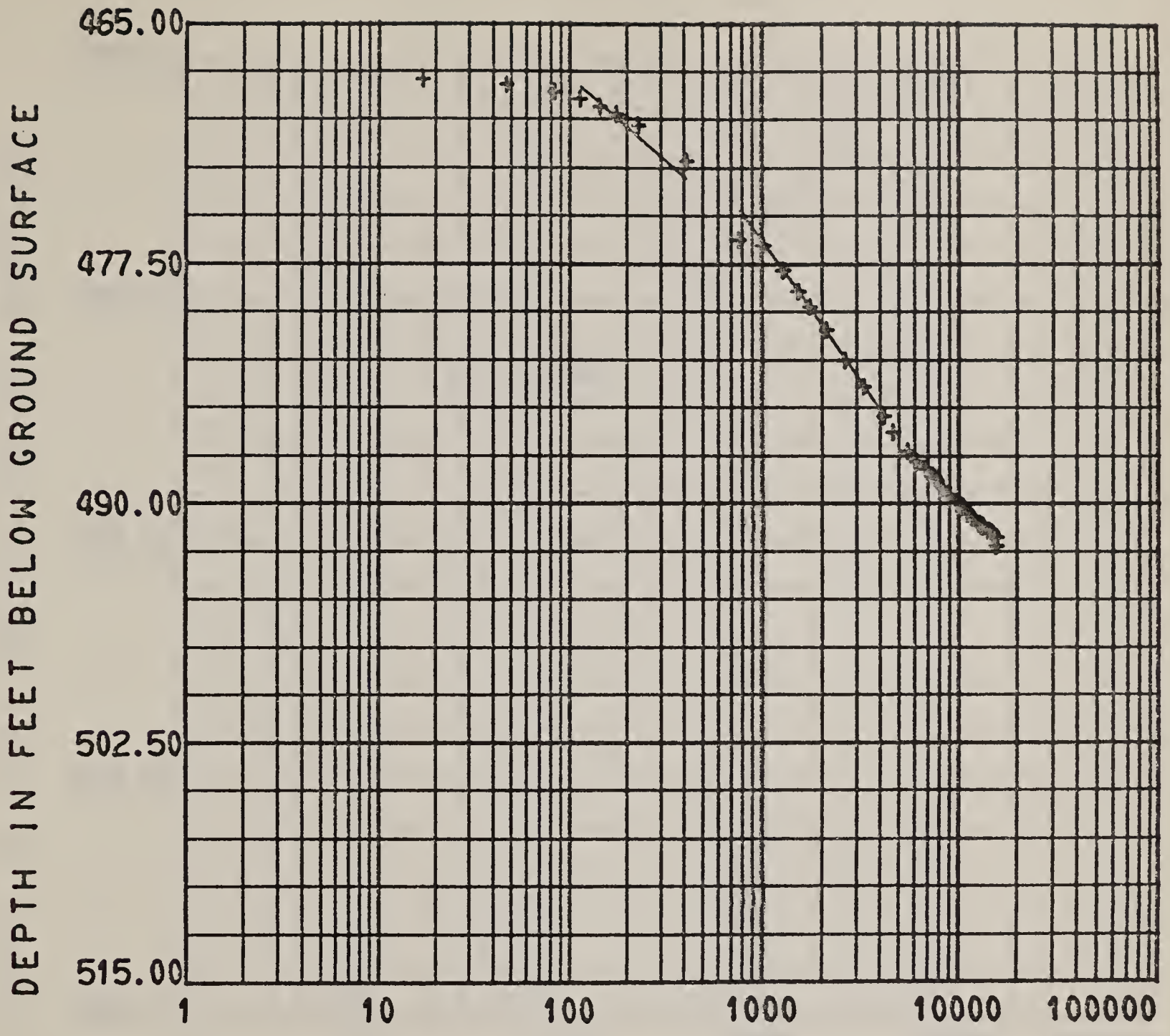
GS-10 GS-19 LOWR RECOVERY

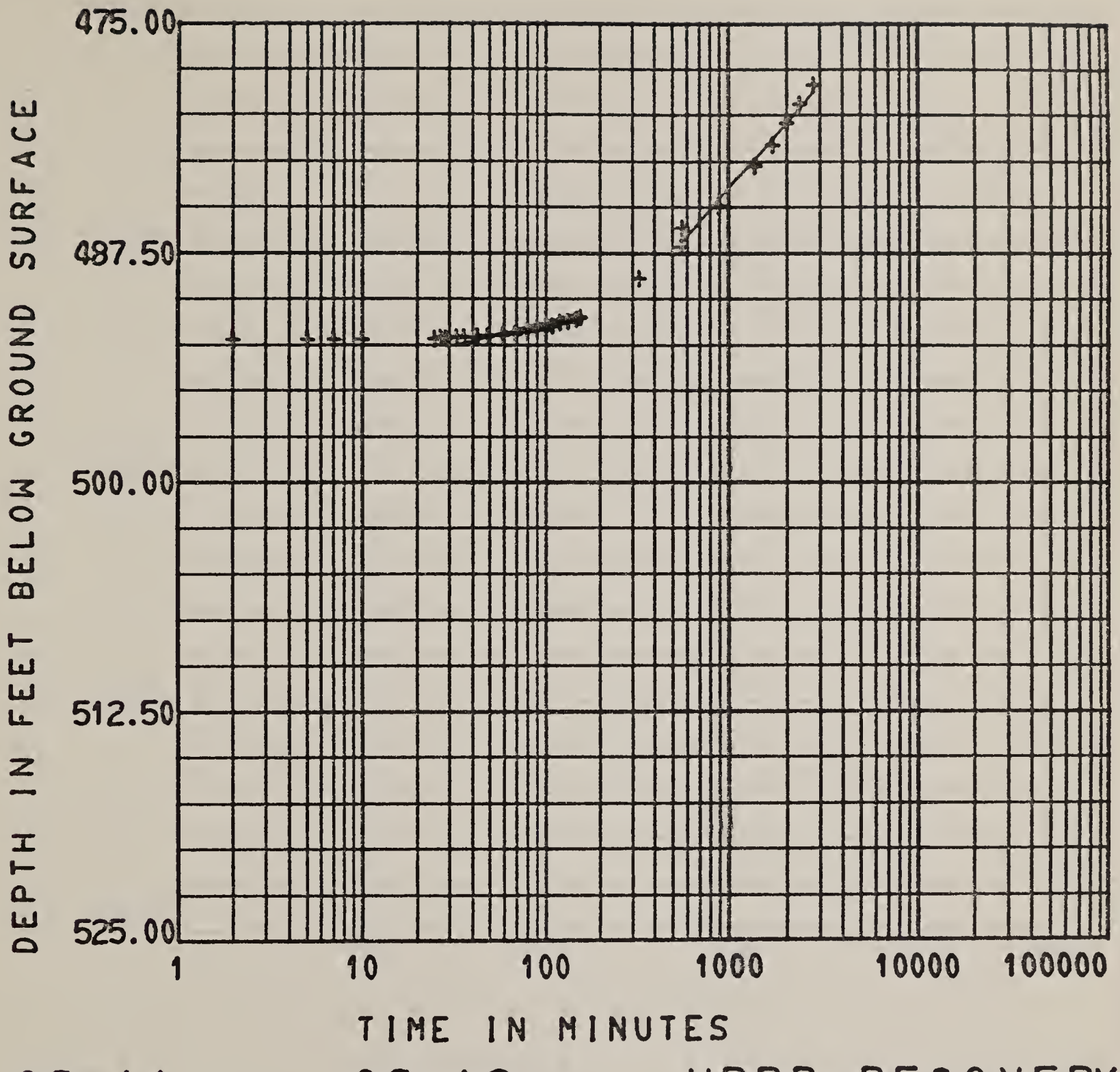


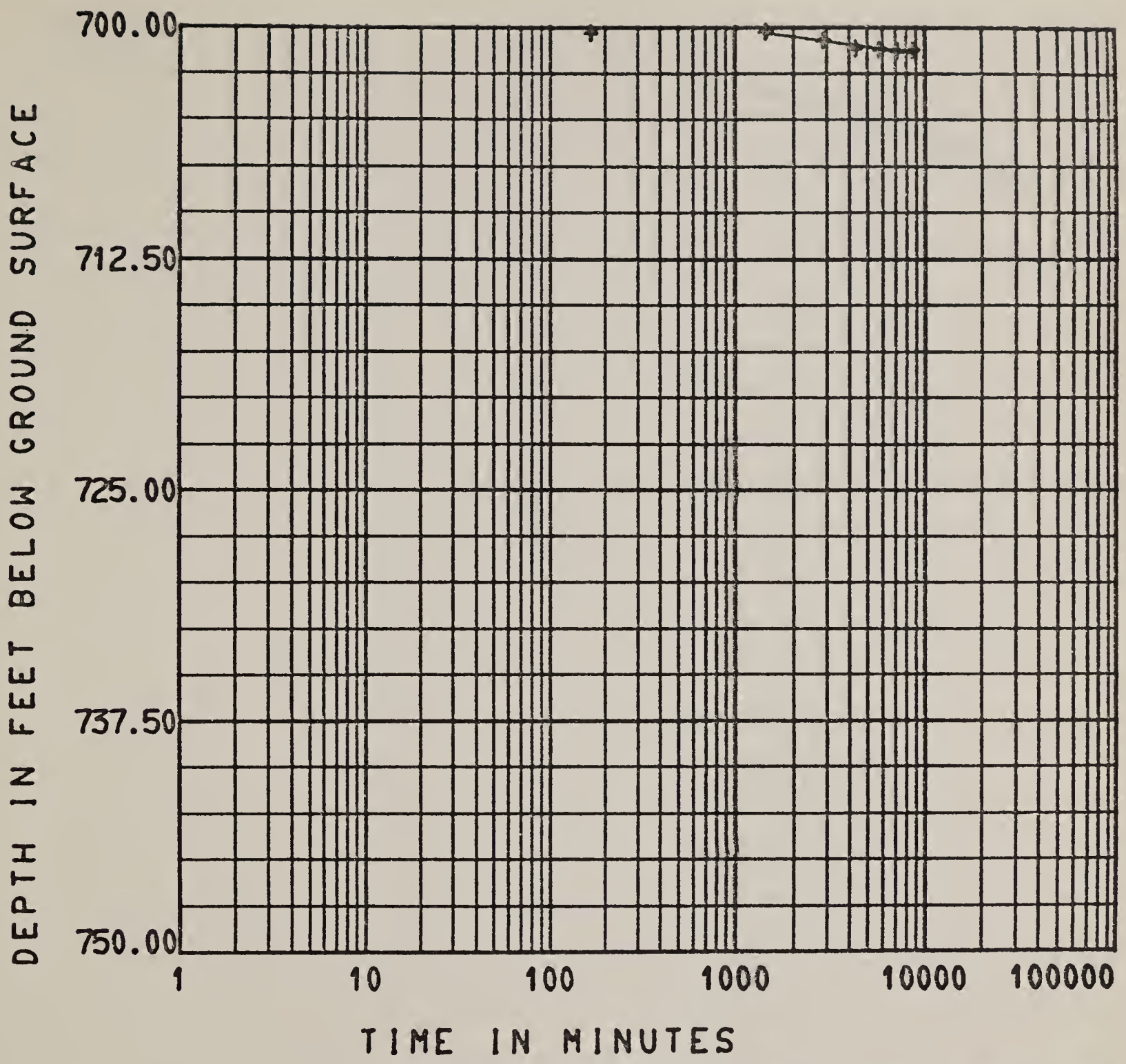
GS-10 GS-19 LOWR DRAWDOWN



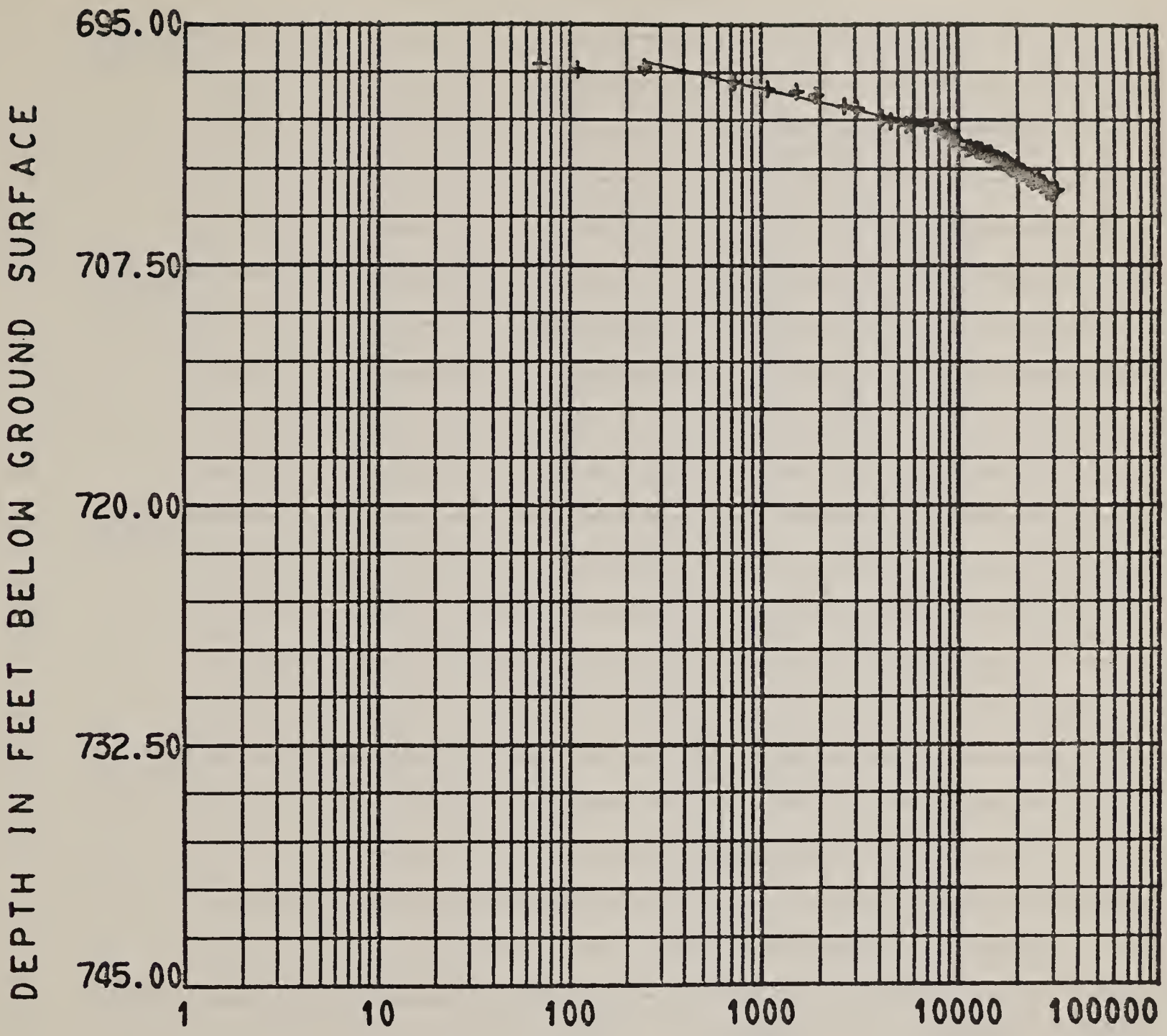
GS-10 GS-19 LOWR DRAWDOWN

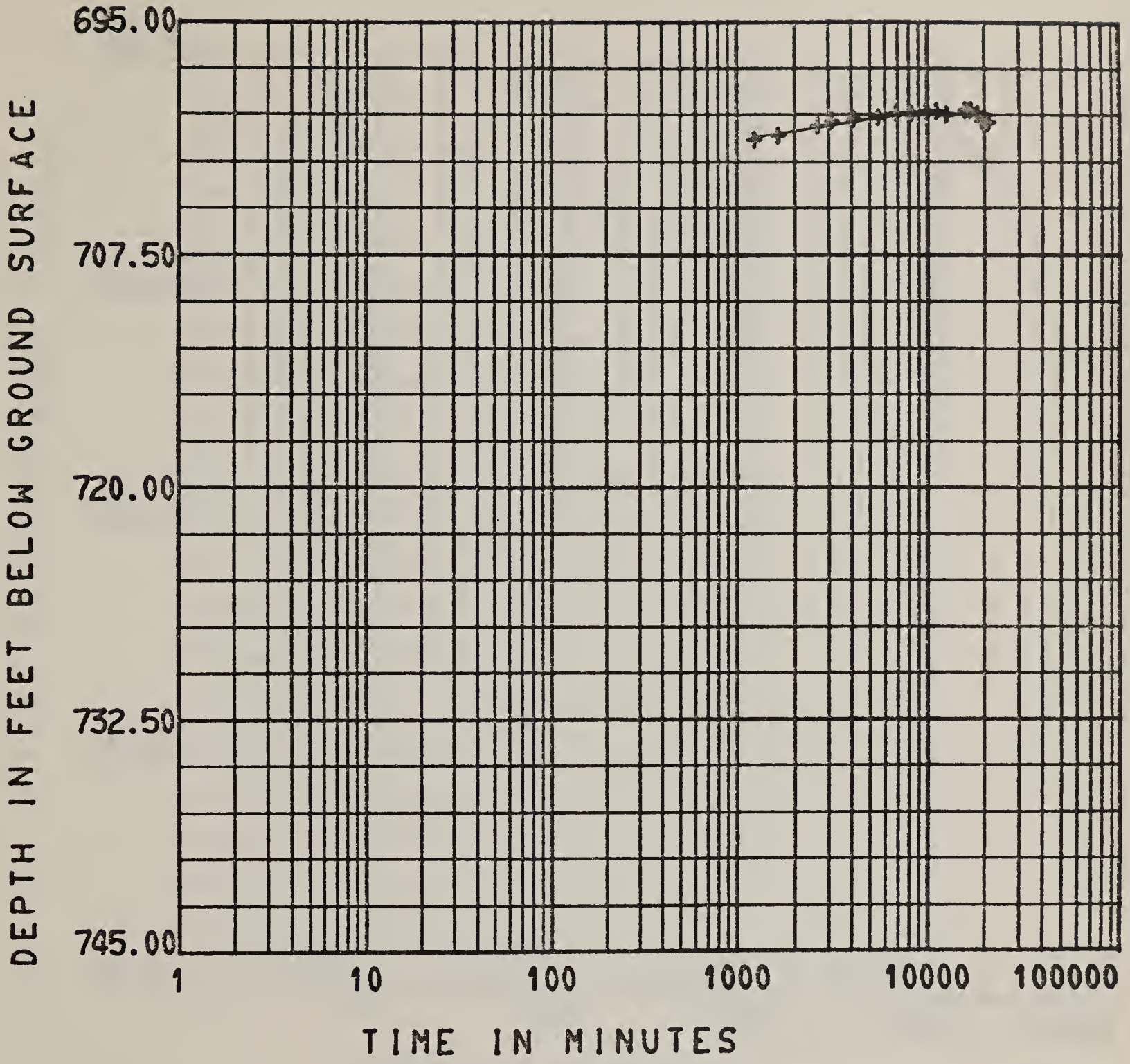

DEPTH IN FEET BELOW GROUND SURFACE
465.00
477.50
490.00
502.50
515.00
1
10
100
1000
10000
100000
TIME IN MINUTES
GS-11
GS-12
UPPR DRAWDOWN


475.00
487.50
500.00
512.50
525.00
DEPTH IN FEET BELOW GROUND SURFACE
1
10
100
1000
10000
100000
TIME IN MINUTES
GS-11
GS-12
UPPR RECOVERY

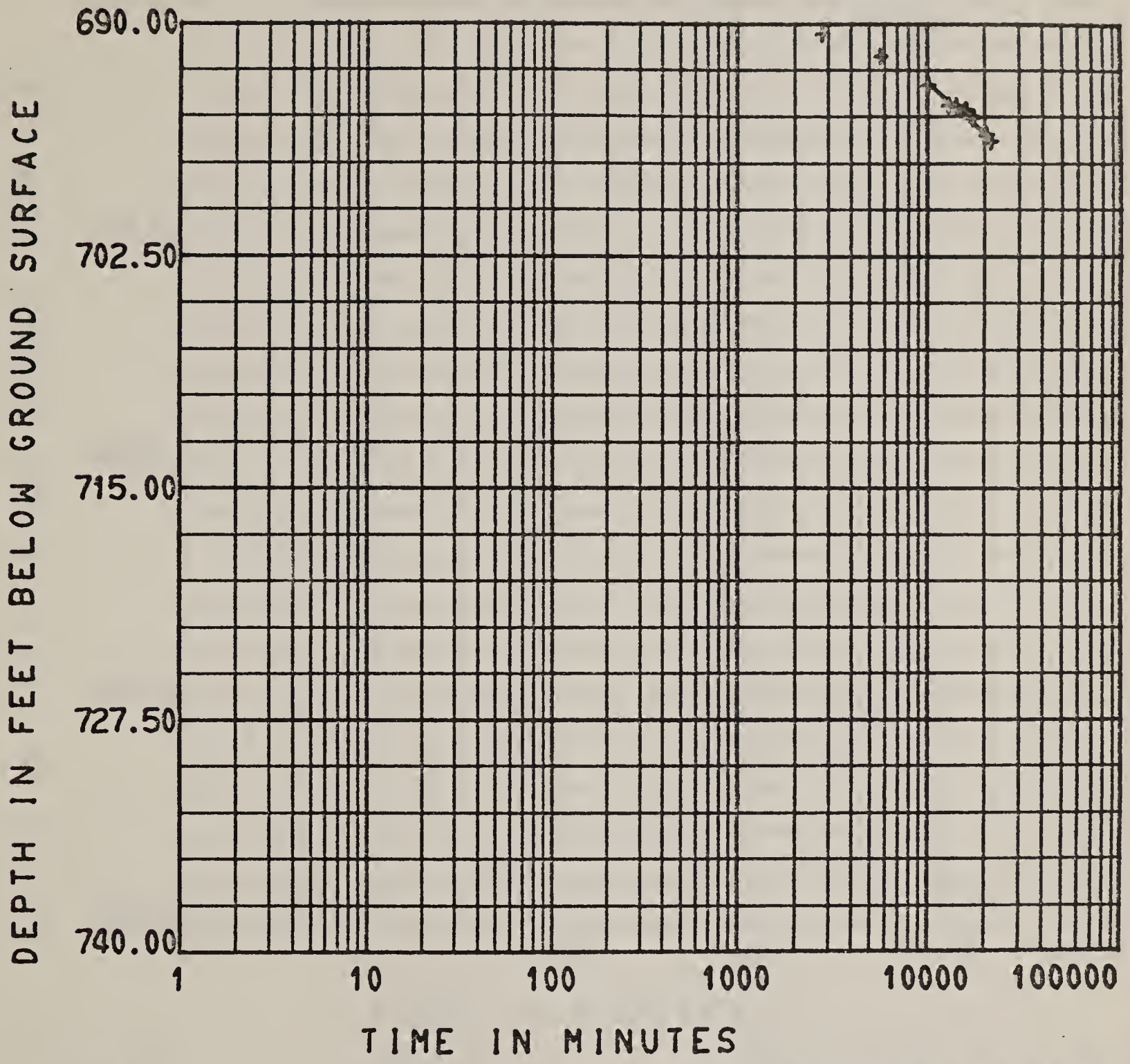


GS-11 CE 705A LOWR DRAWDOWN

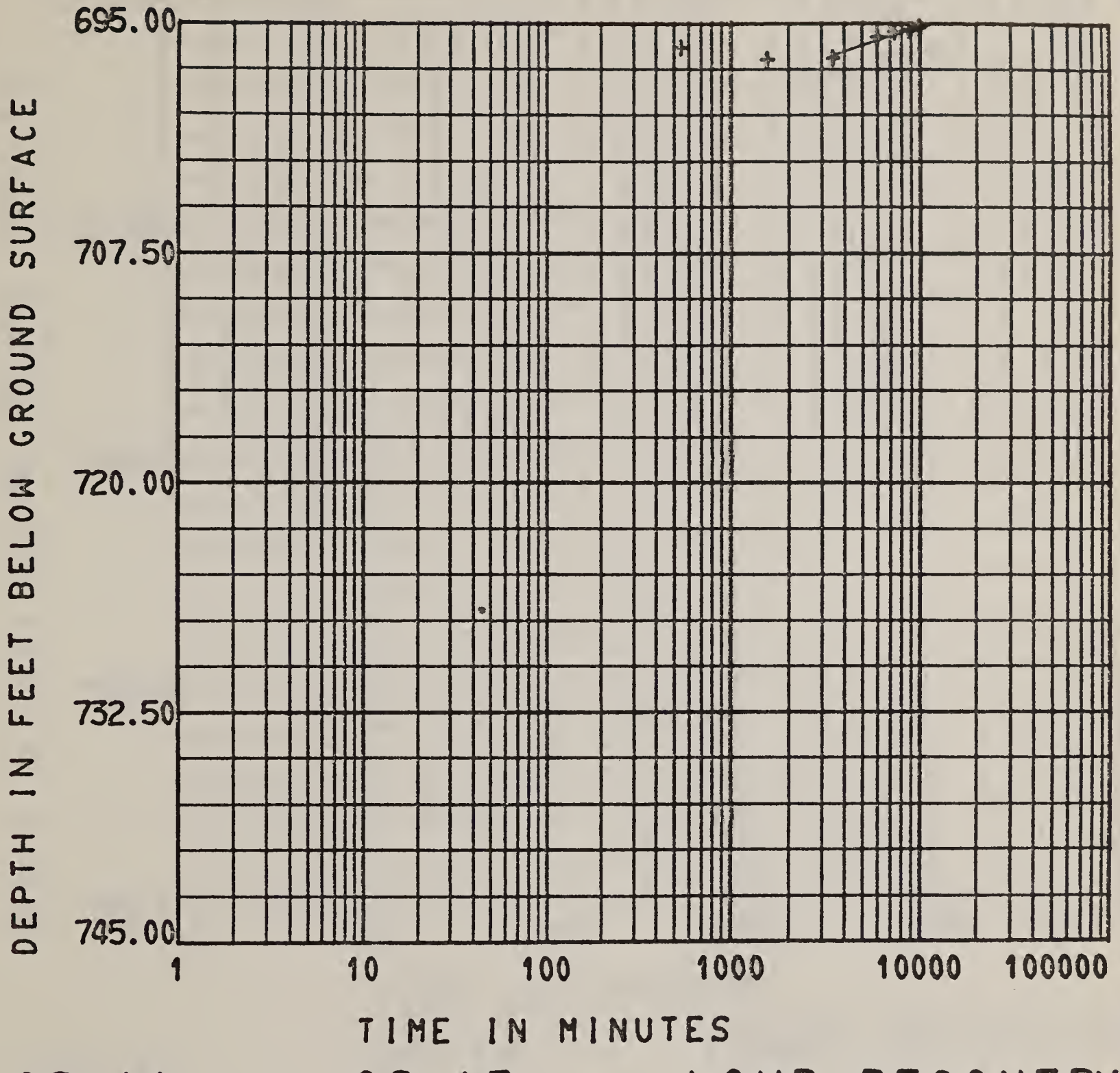

695.00
707.50
720.00
732.50
745.00
DEPTH IN FEET BELOW GROUND SURFACE
1
10
100
1000
10000
100000
TIME IN MINUTES
GS-11
GS-16
LOWR DRAWDOWN



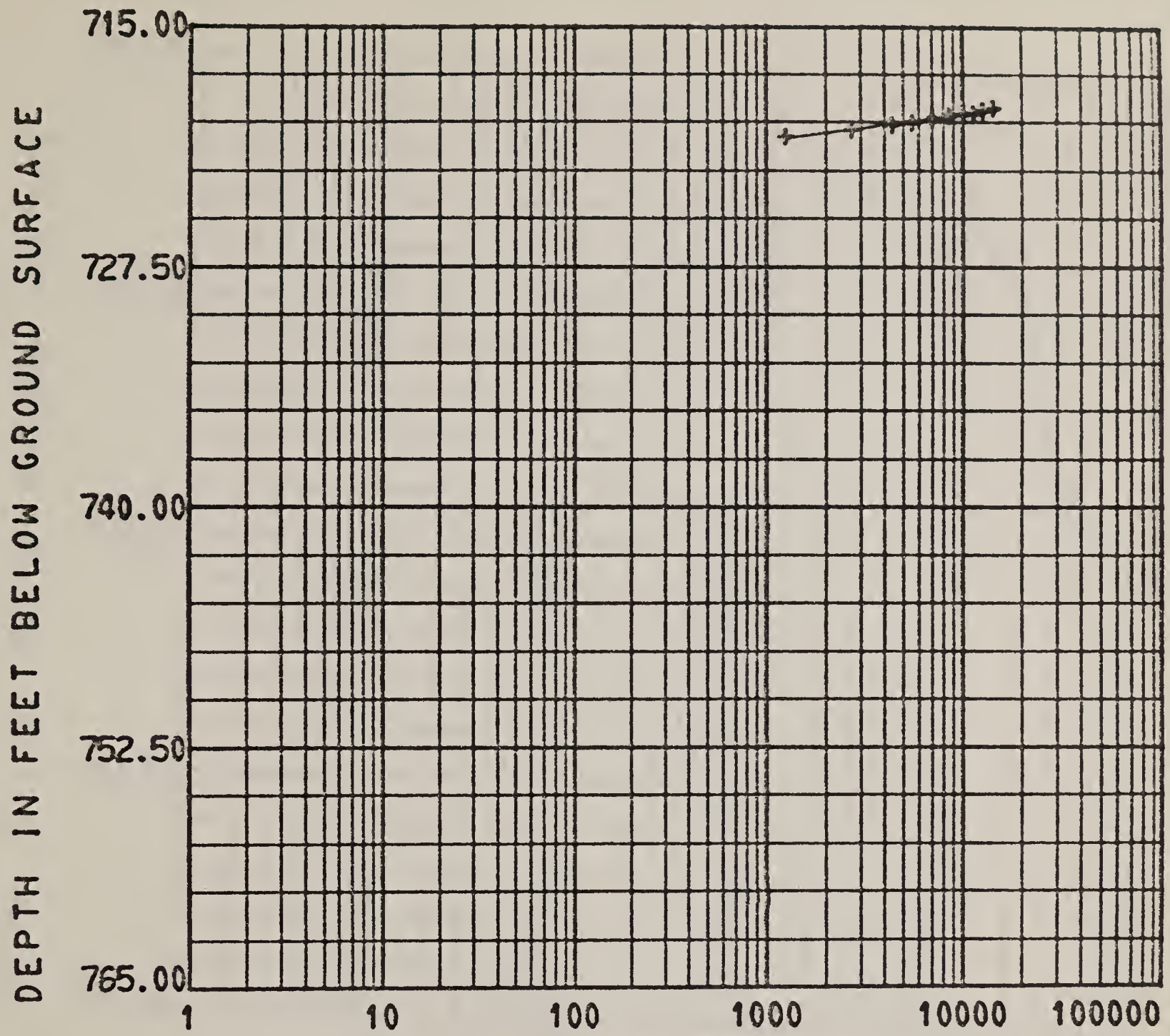
GS-11 GS-16 LOWR RECOVERY



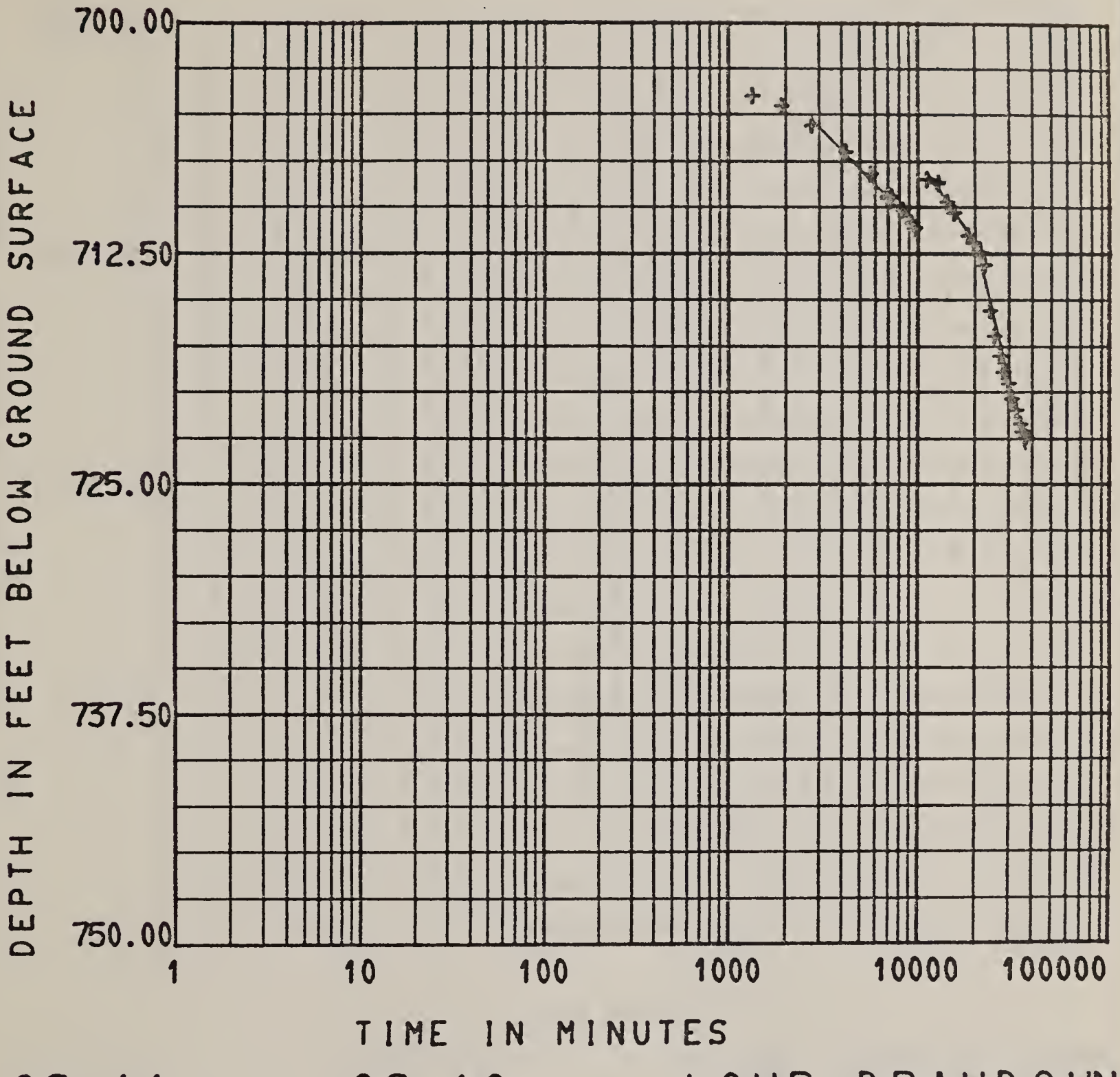
GS-11 GS-17 LOWR DRAWDOWN



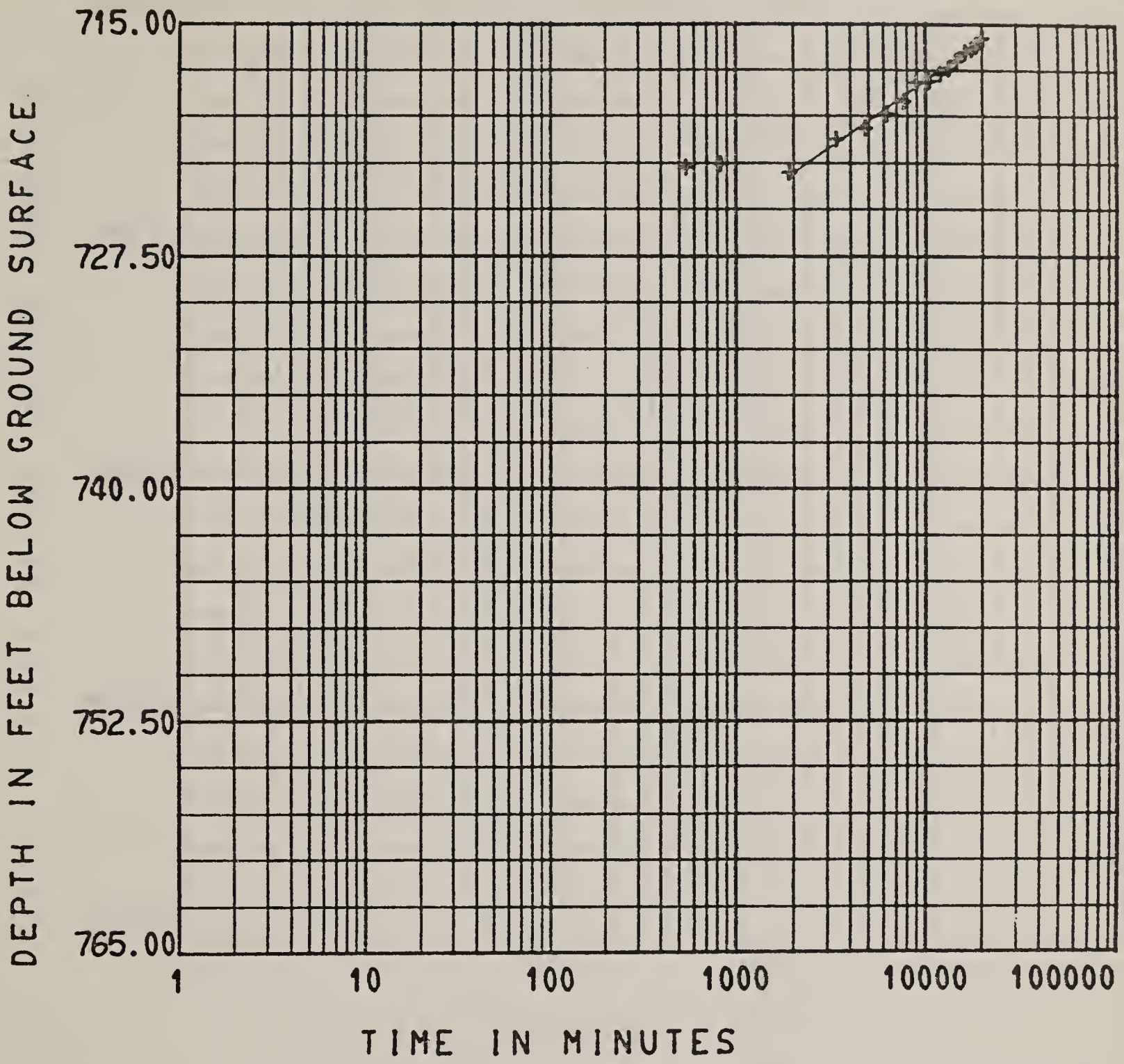
GS-11 GS-17 LOWR RECOVERY



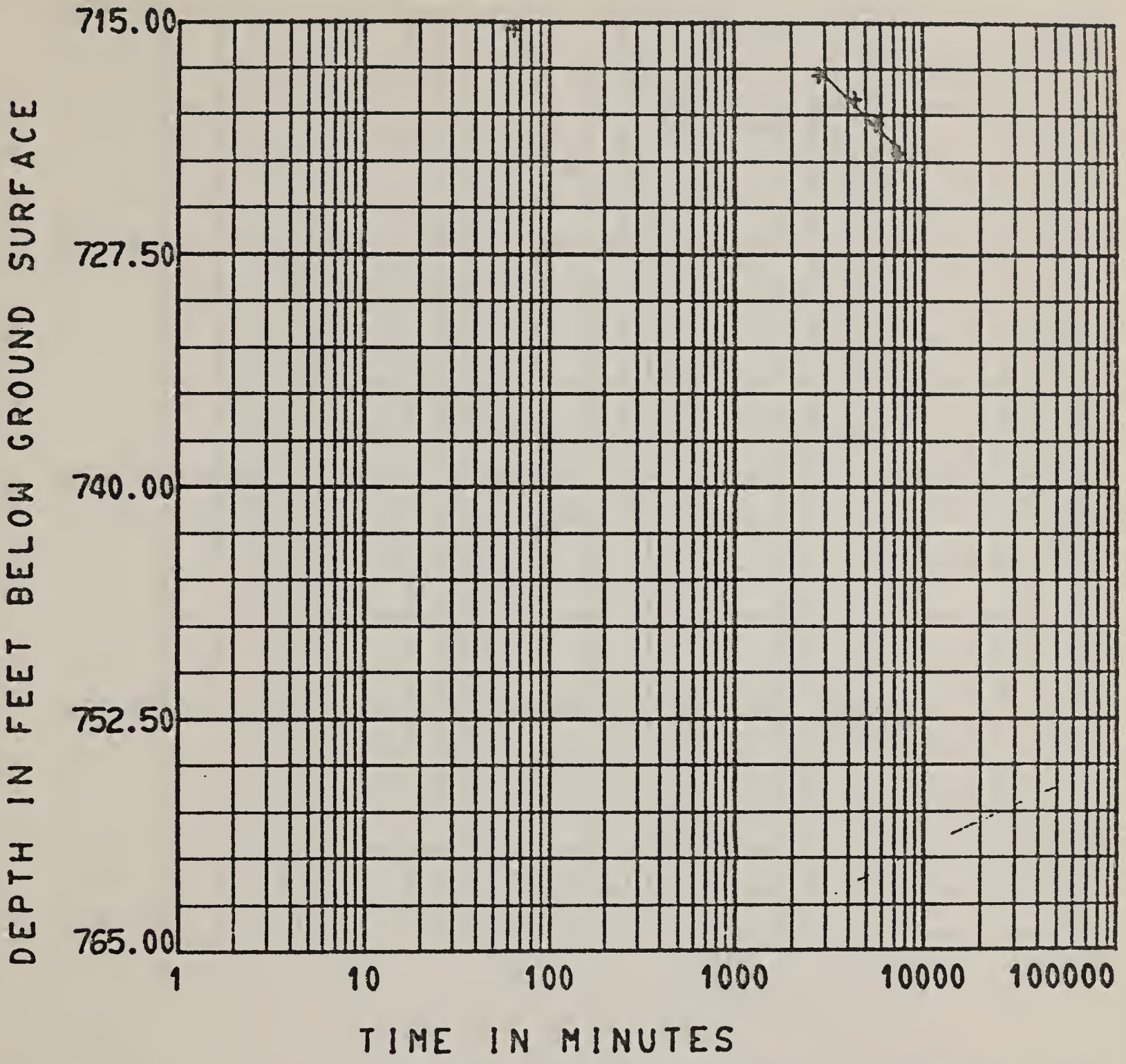
GS-11 GS-18 LOWR RECOVERY

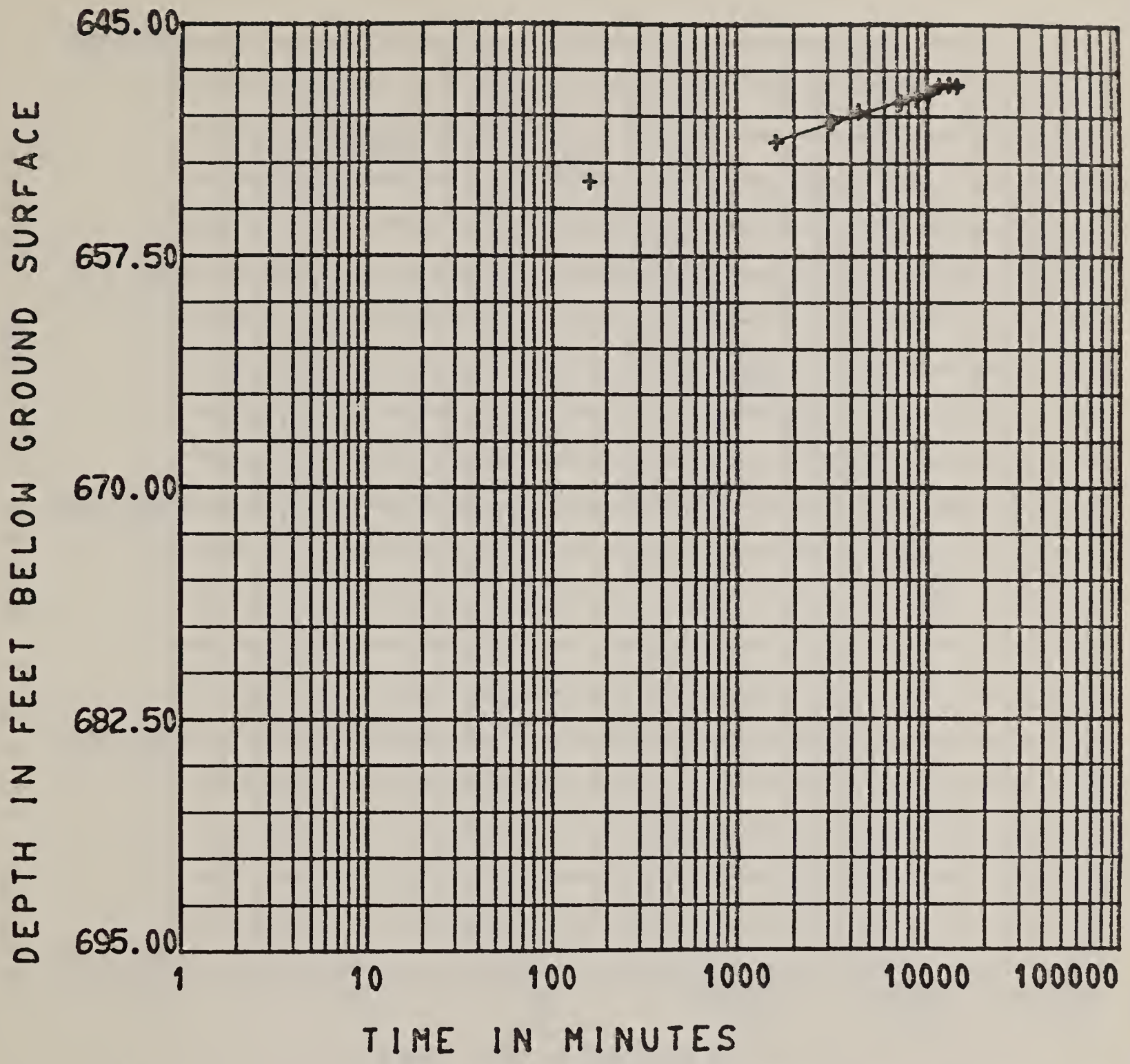


GS-11 GS-19 LOWR DRAWDOWN

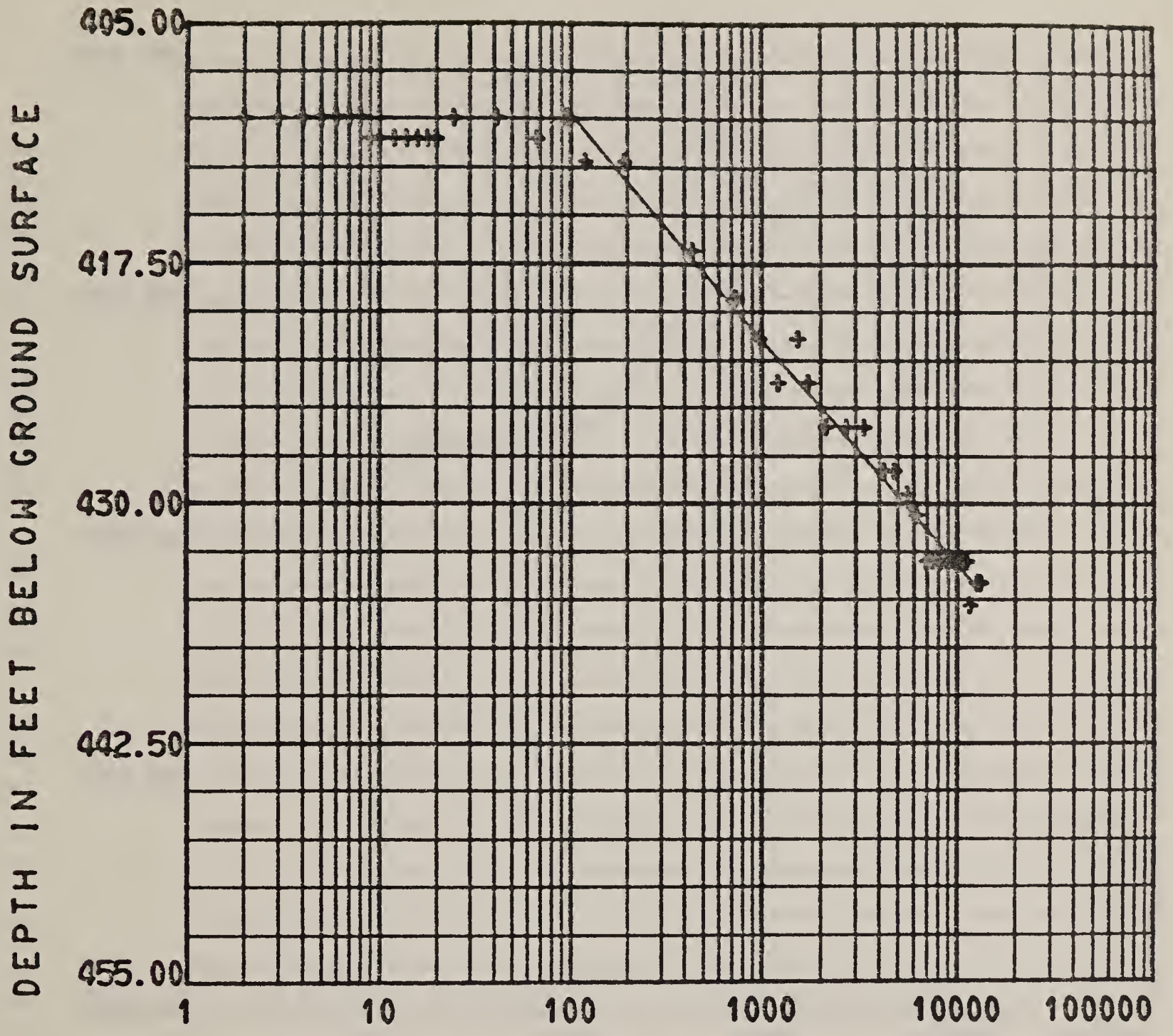


GS-11 GS-19 LOWR RECOVERY

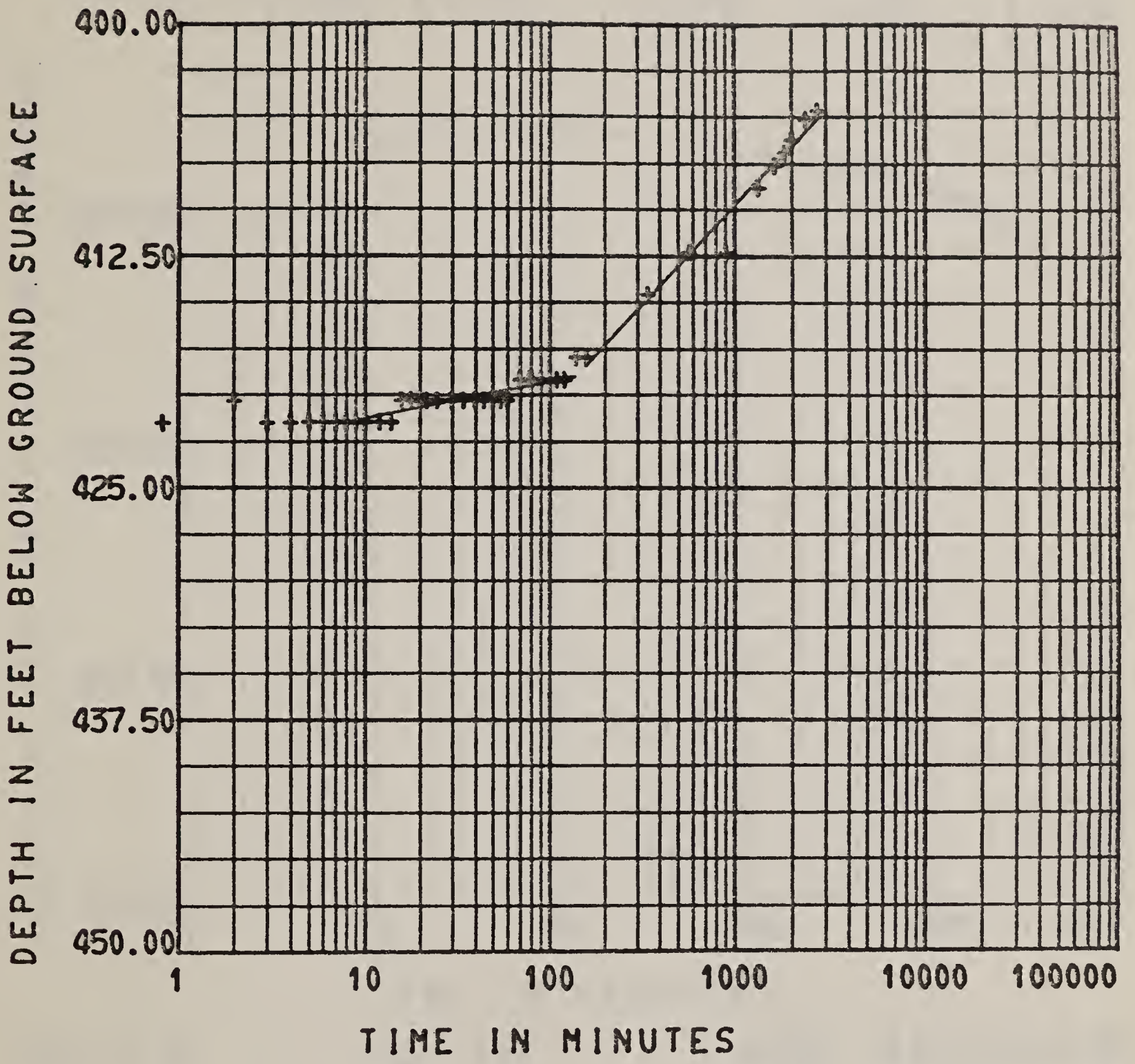

715.00
727.50
740.00
752.50
765.00
DEPTH IN FEET BELOW GROUND SURFACE
1
10
100
1000
10000
100000
TIME IN MINUTES
GS-11
GS-19
LOWR DRAWDOWN



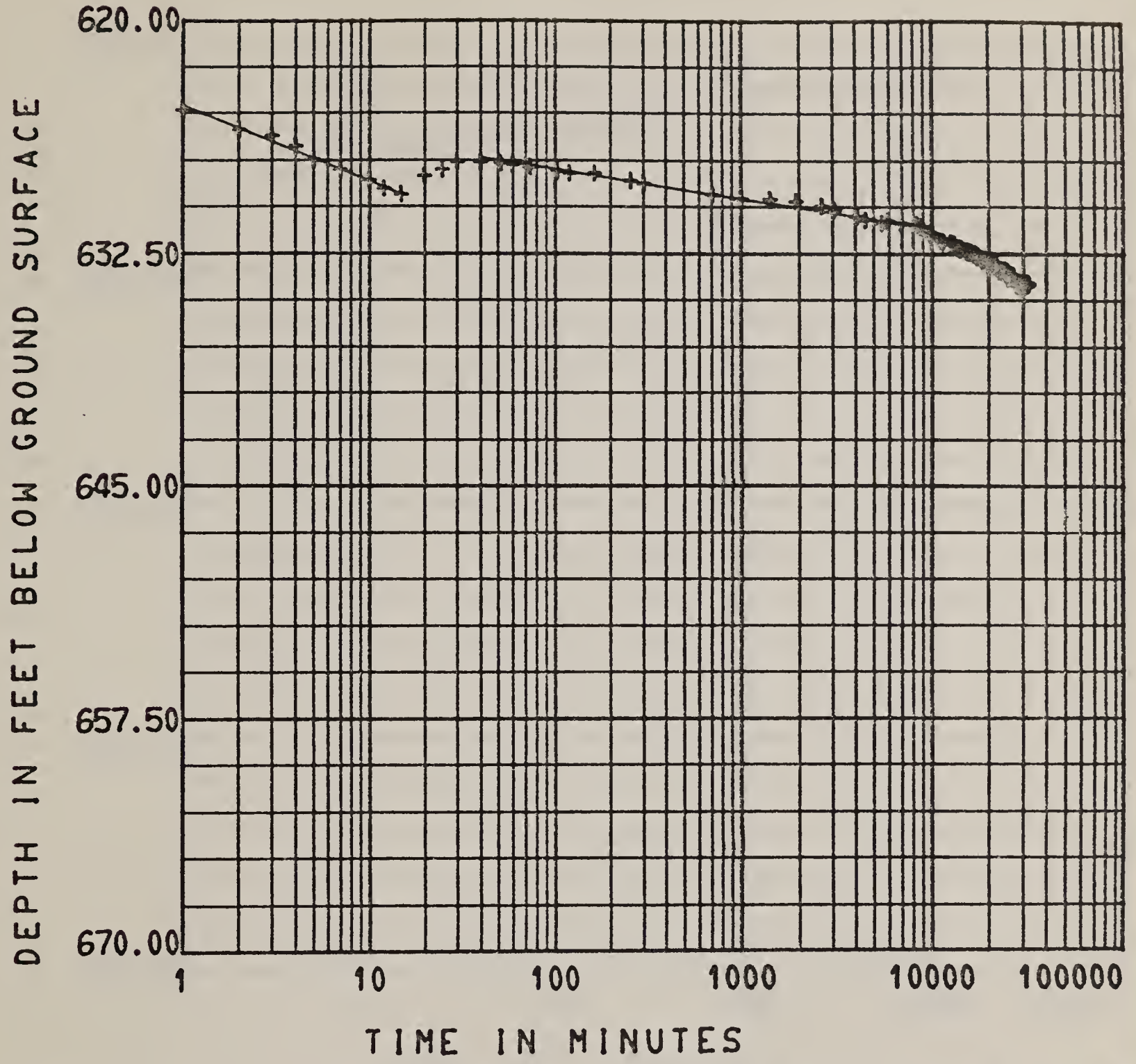
GS-12 GS-19 LOWR RECOVERY



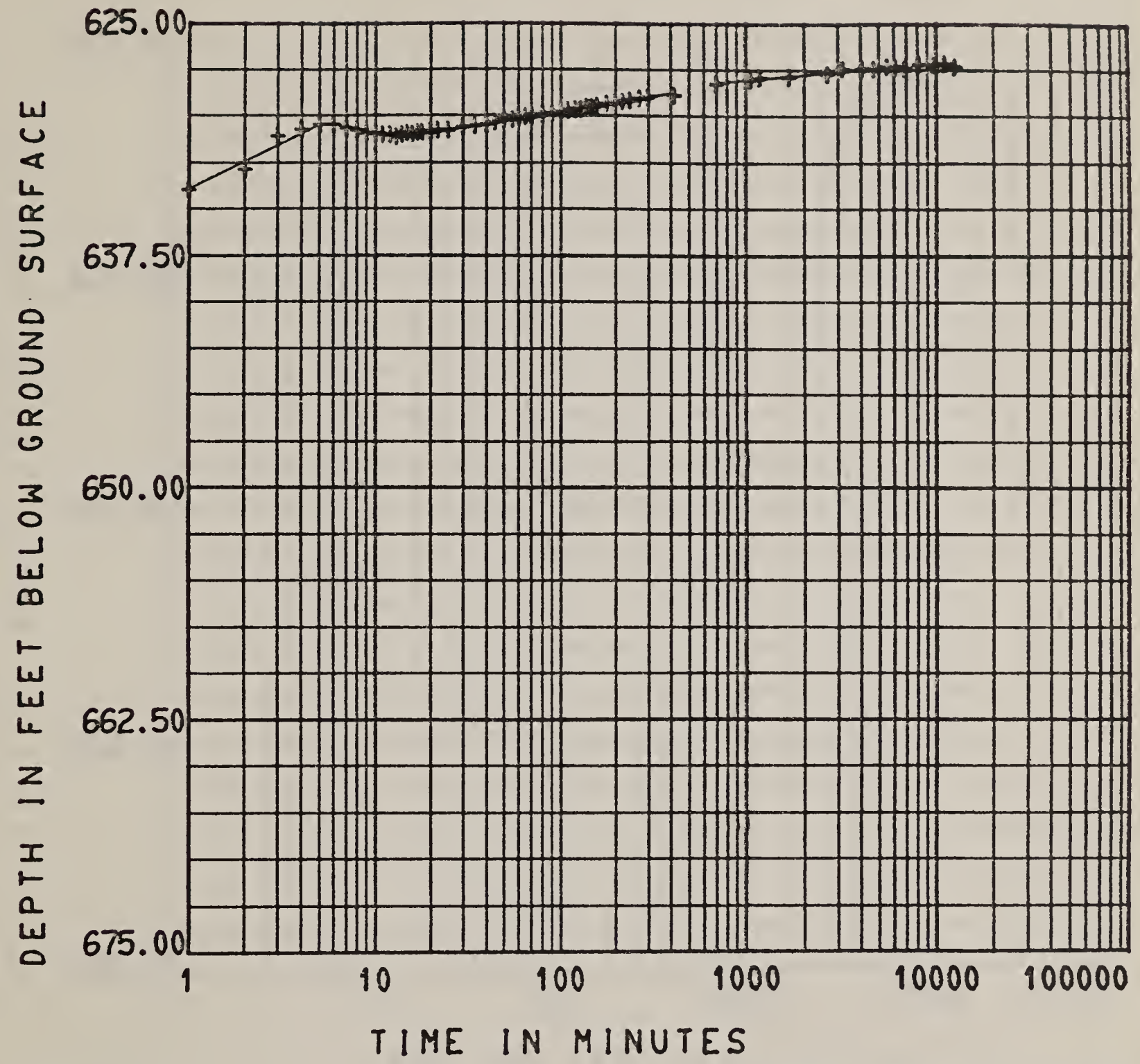
GS-12 GS-12 UPPR DRAWDOWN



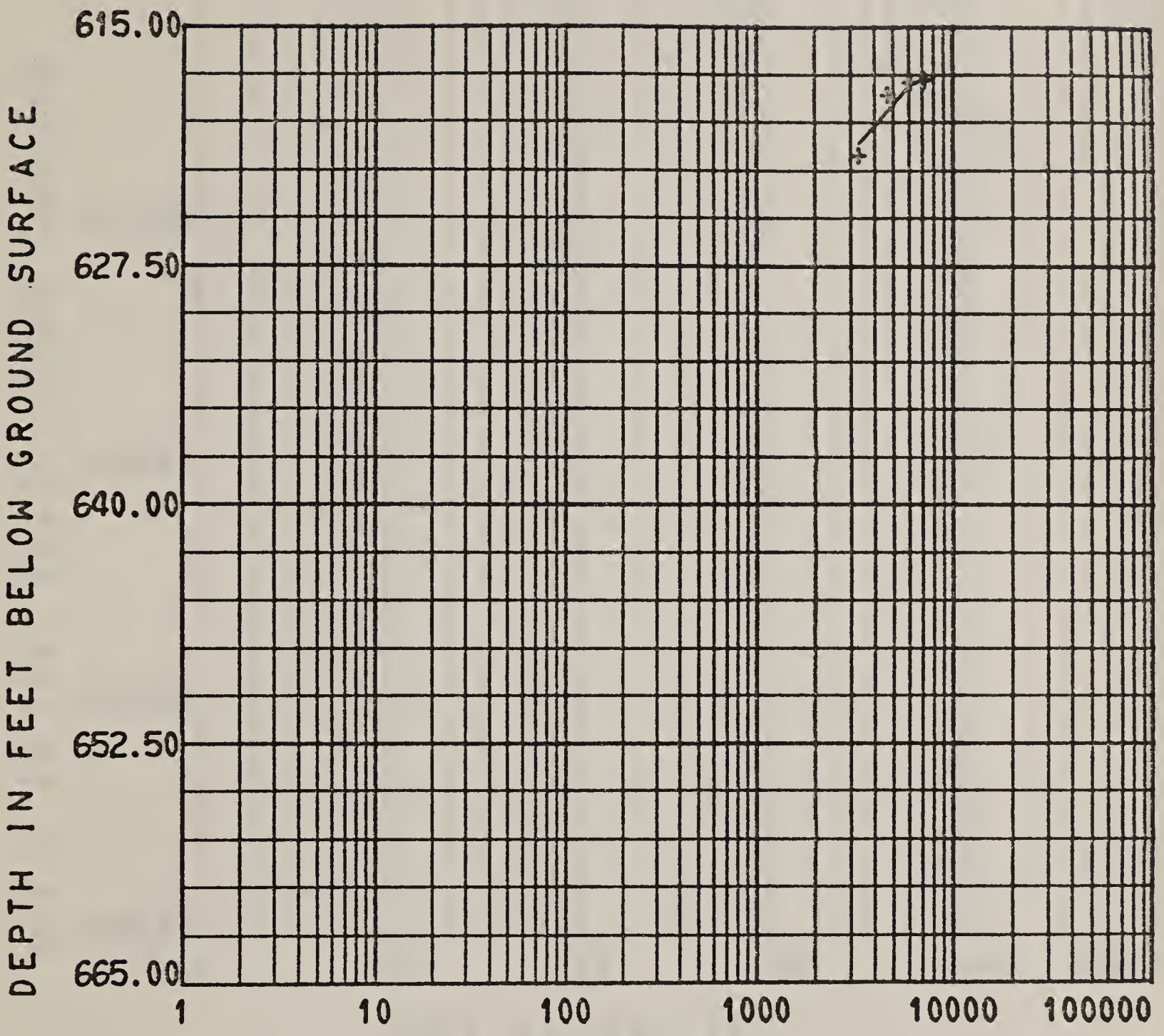
GS-12 GS-12 UPPR RECOVERY



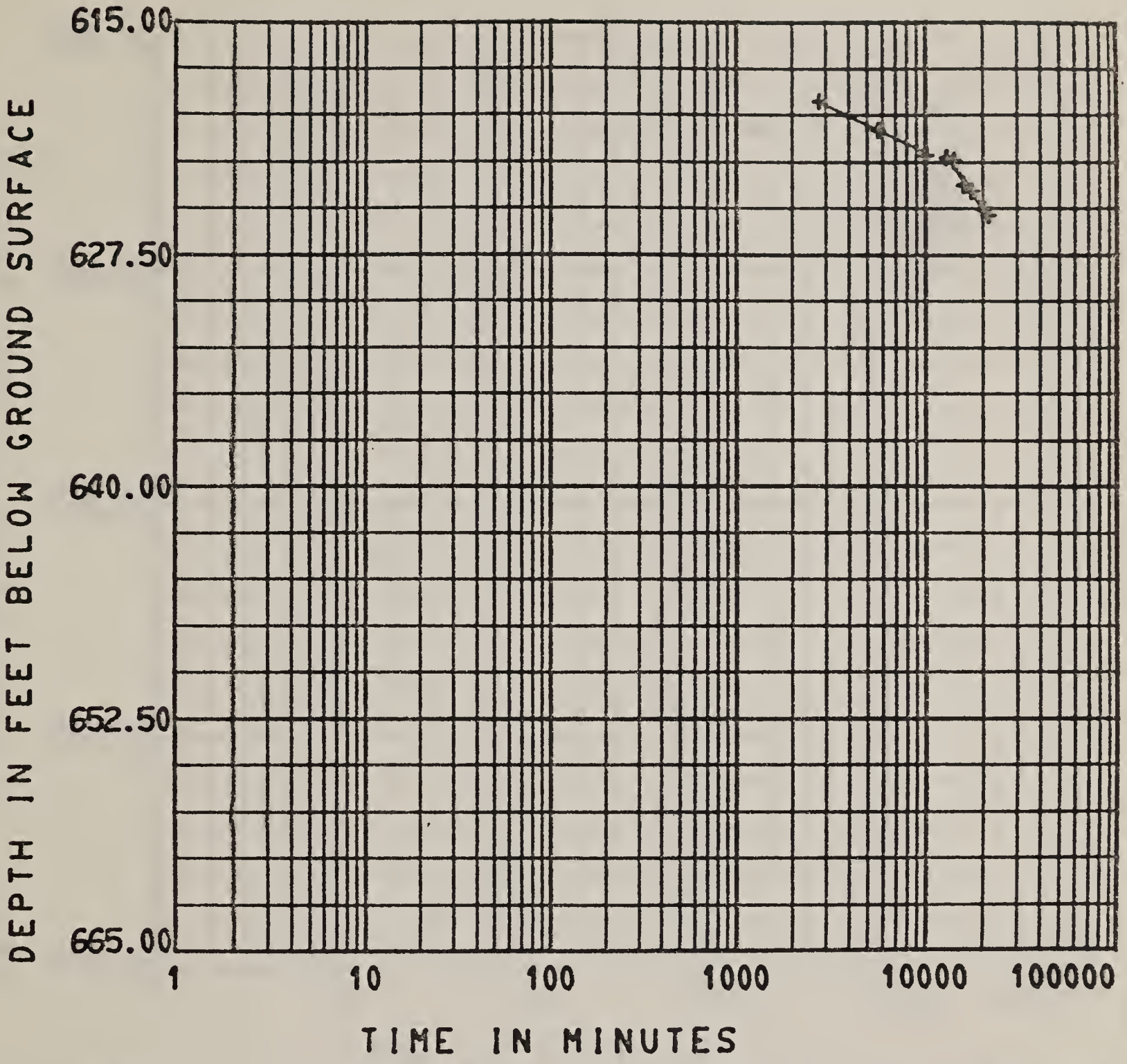
GS-12 GS-16 LOWR DRAWDOWN



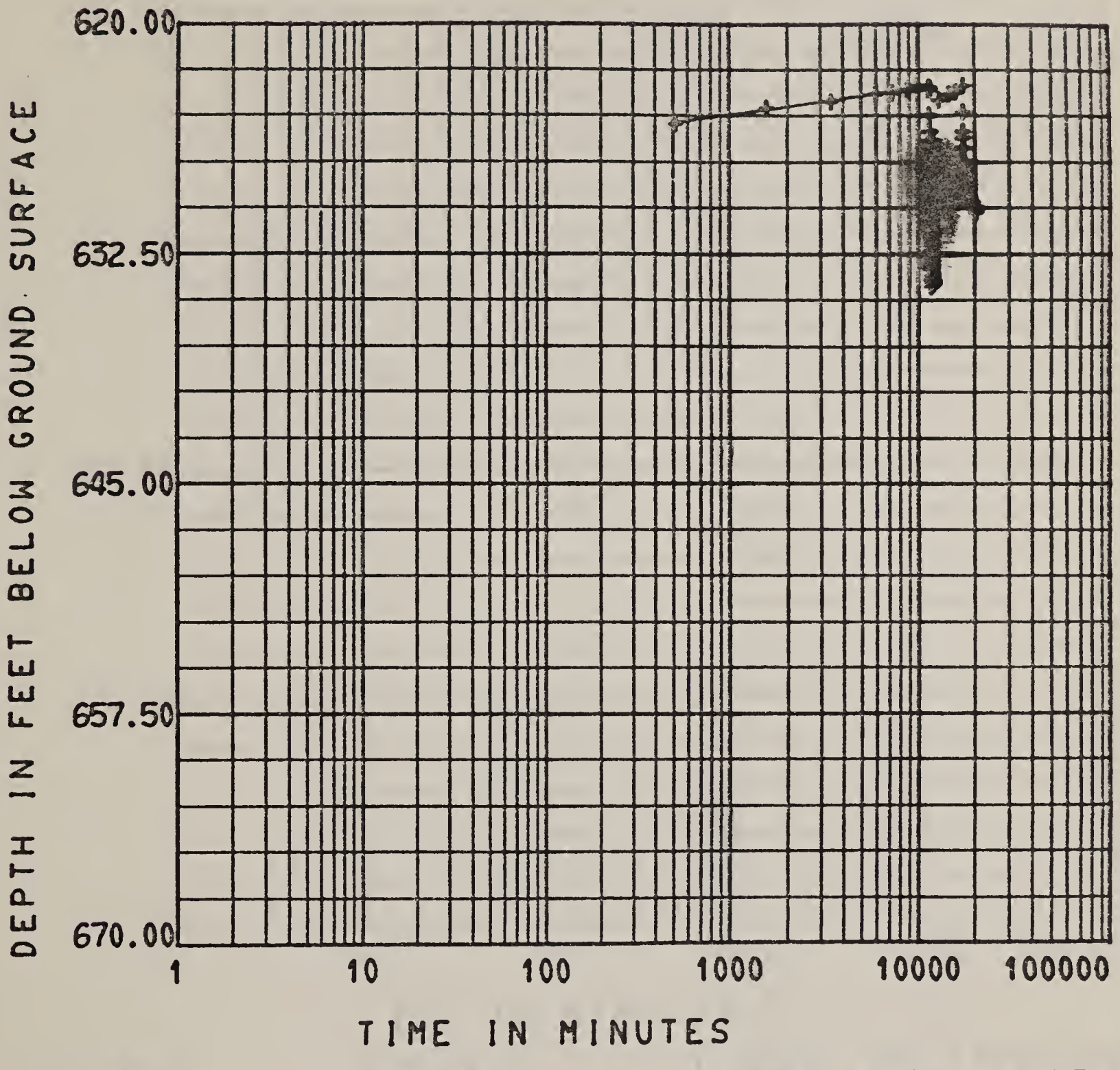
GS-12 GS-16 LOWR RECOVERY



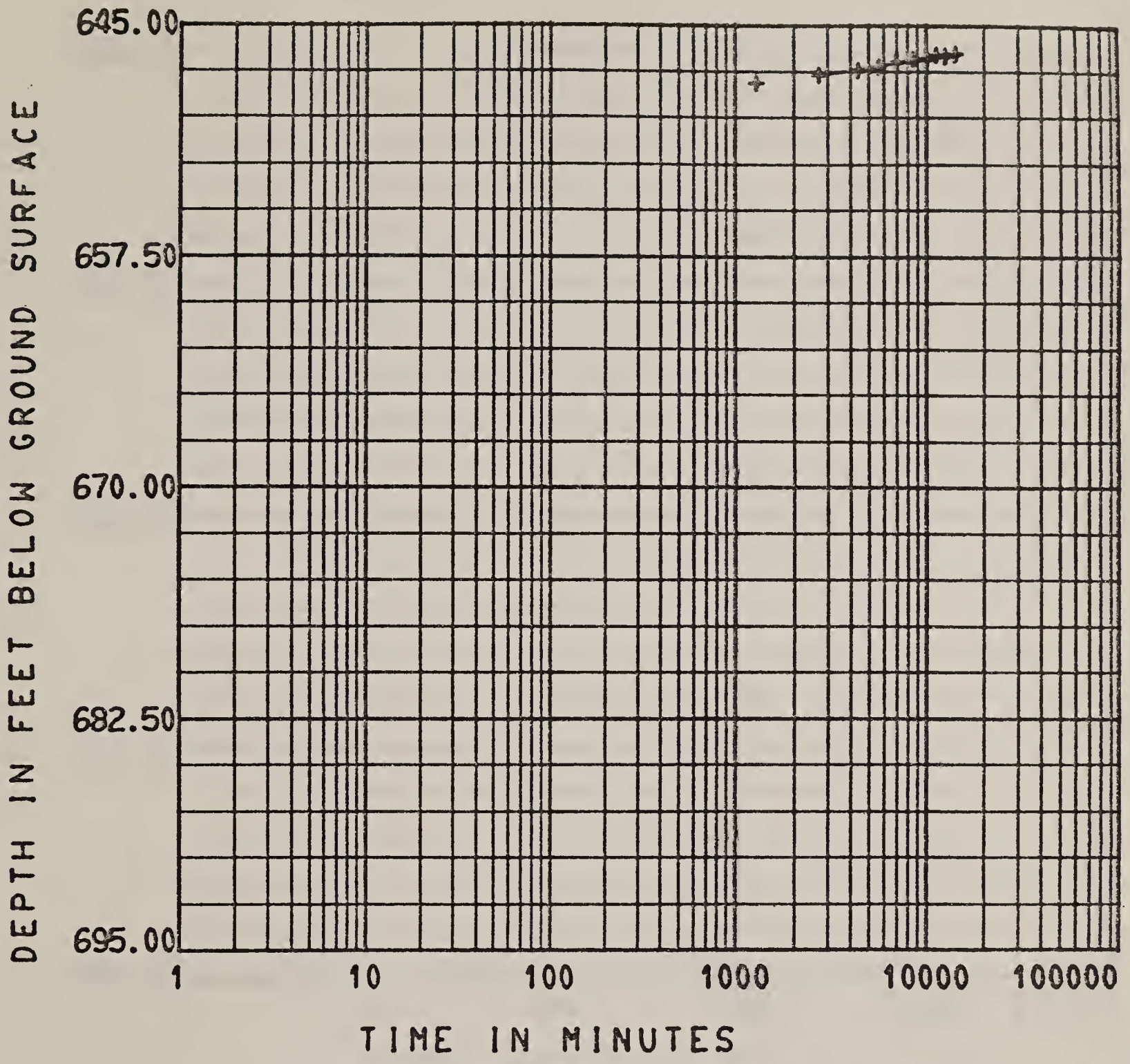
GS-12 GS-17 LOWR RECOVERY



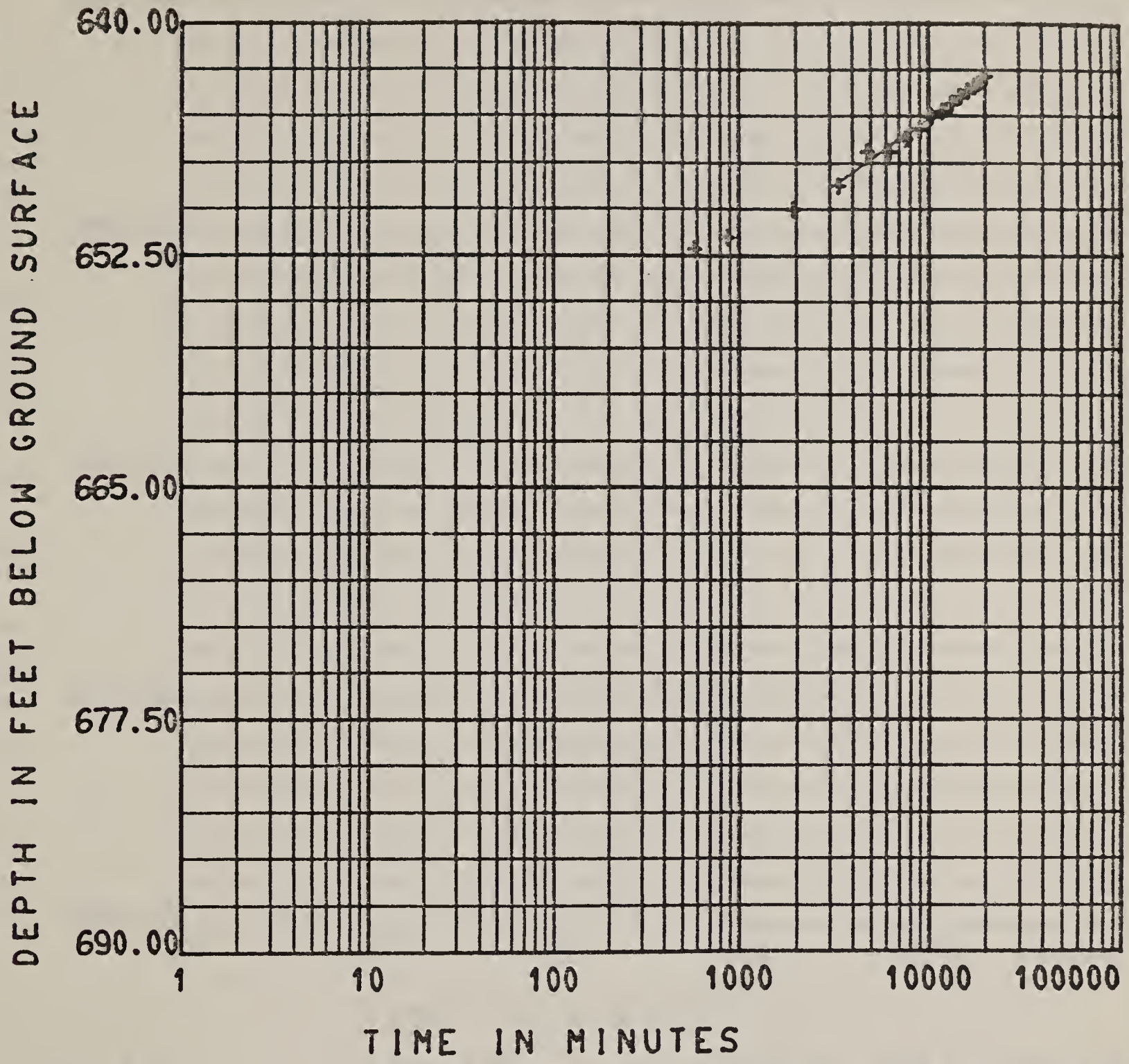
GS-12 GS-17 LOWR DRAWDOWN



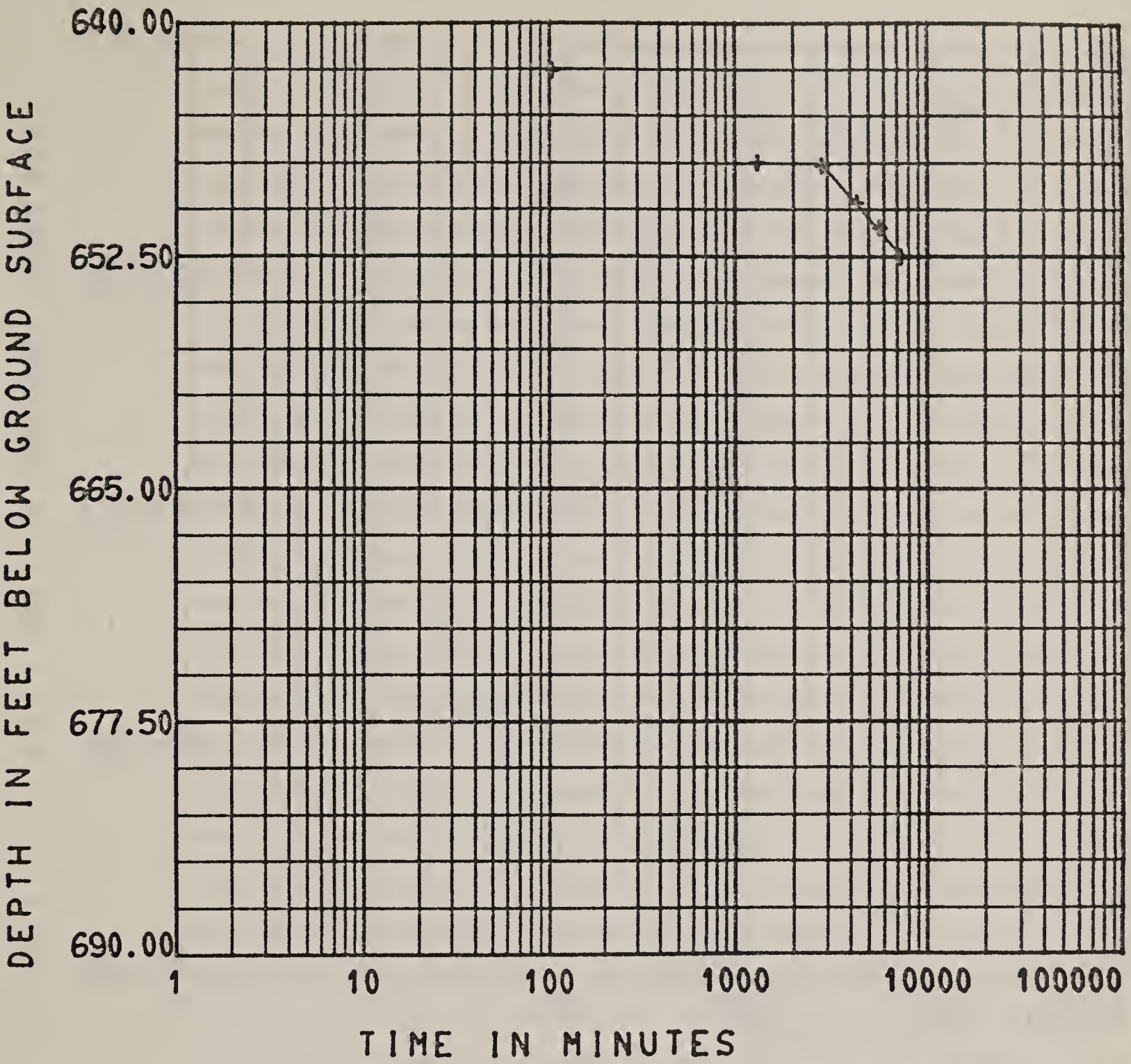
GS-12 GS-17 LOWR RECOVERY

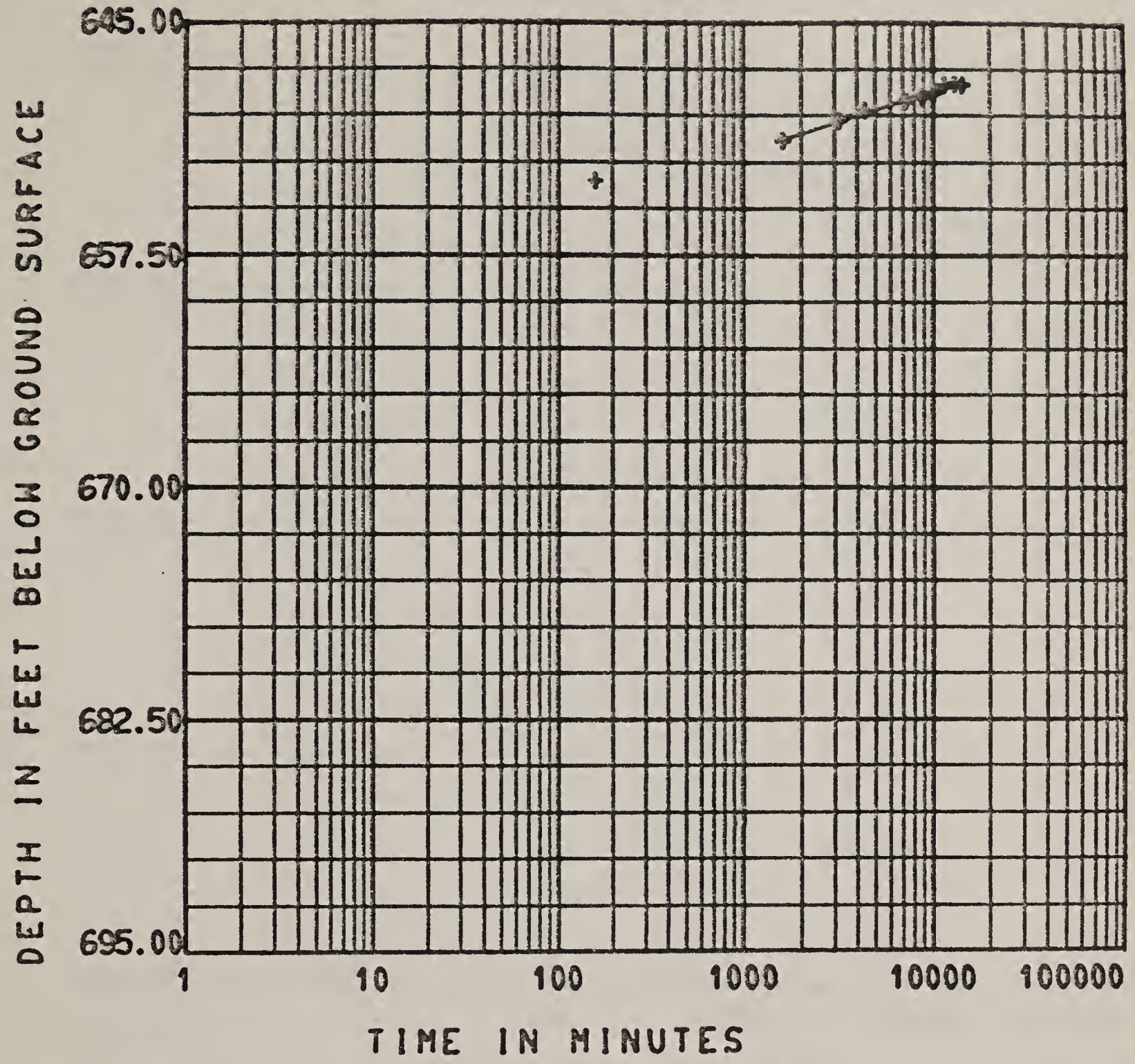


GS-12 GS-18 LOWR RECOVERY

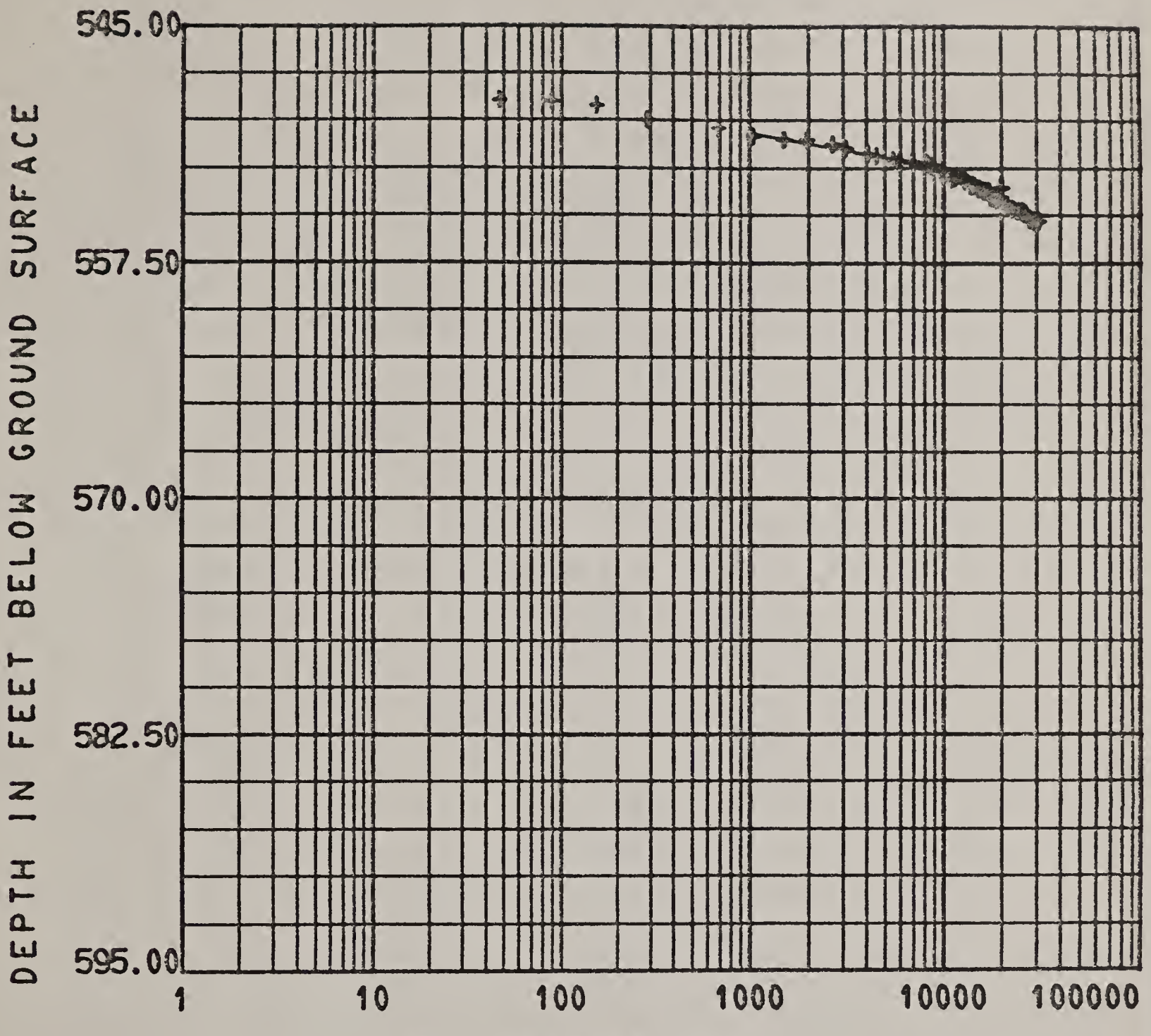


GS-12 GS-19 LOWR RECOVERY

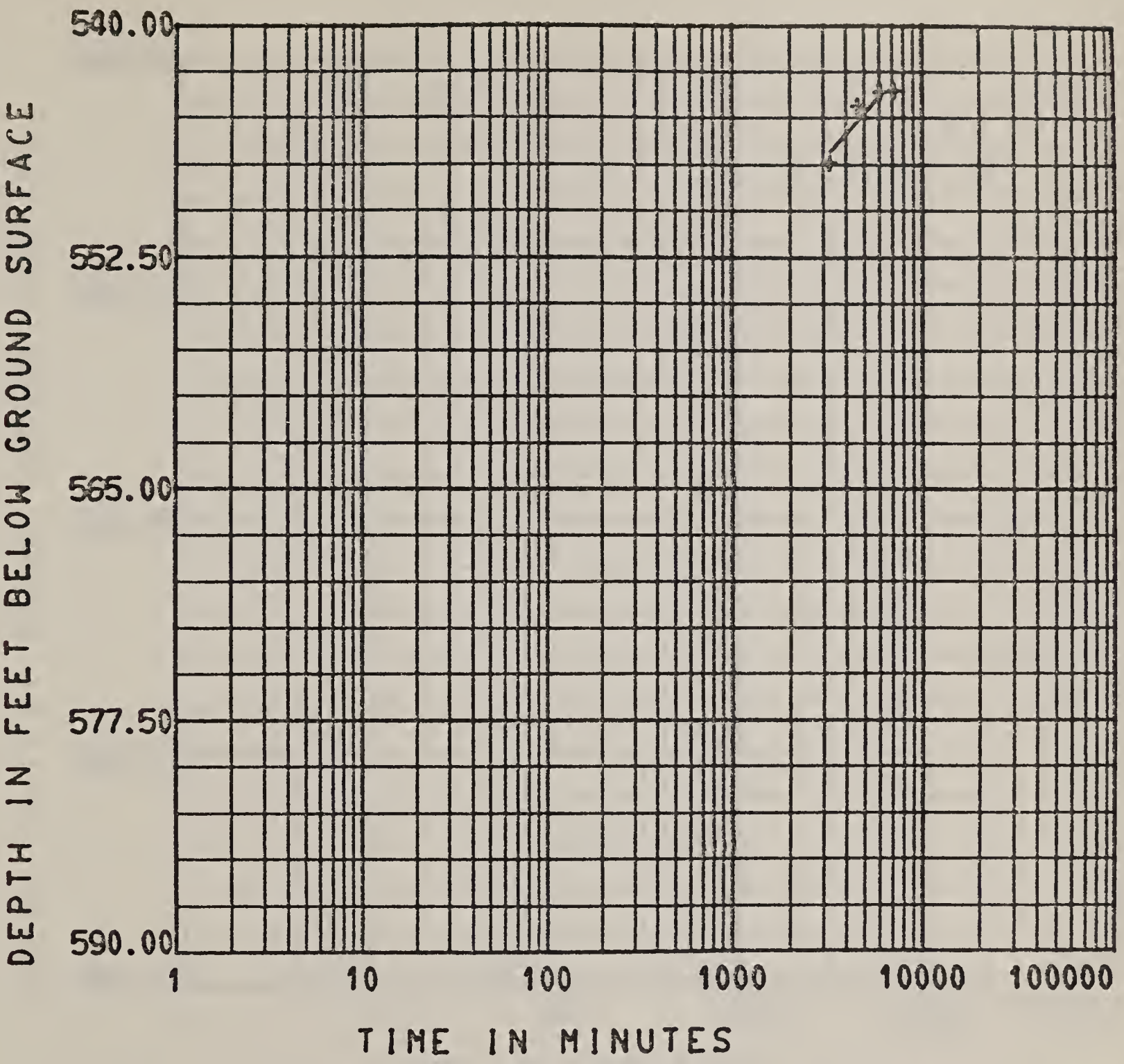

640.00
652.50
665.00
677.50
690.00
DEPTH IN FEET BELOW GROUND SURFACE
1
10
100
1000
10000
100000
TIME IN MINUTES
GS-12
GS-19
LOWR DRAWDOWN



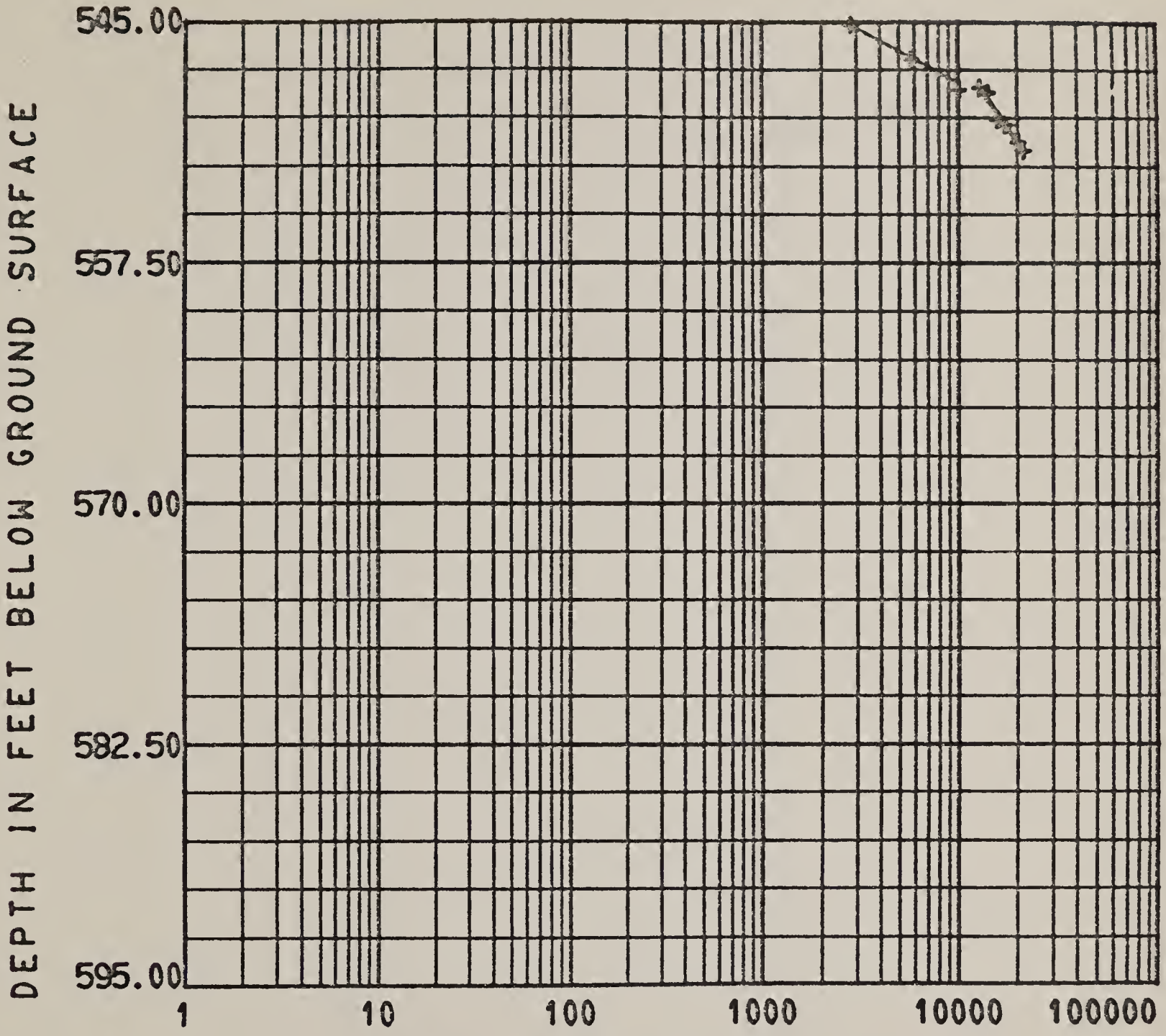
GS-12 GS-19 LOWR RECOVERY



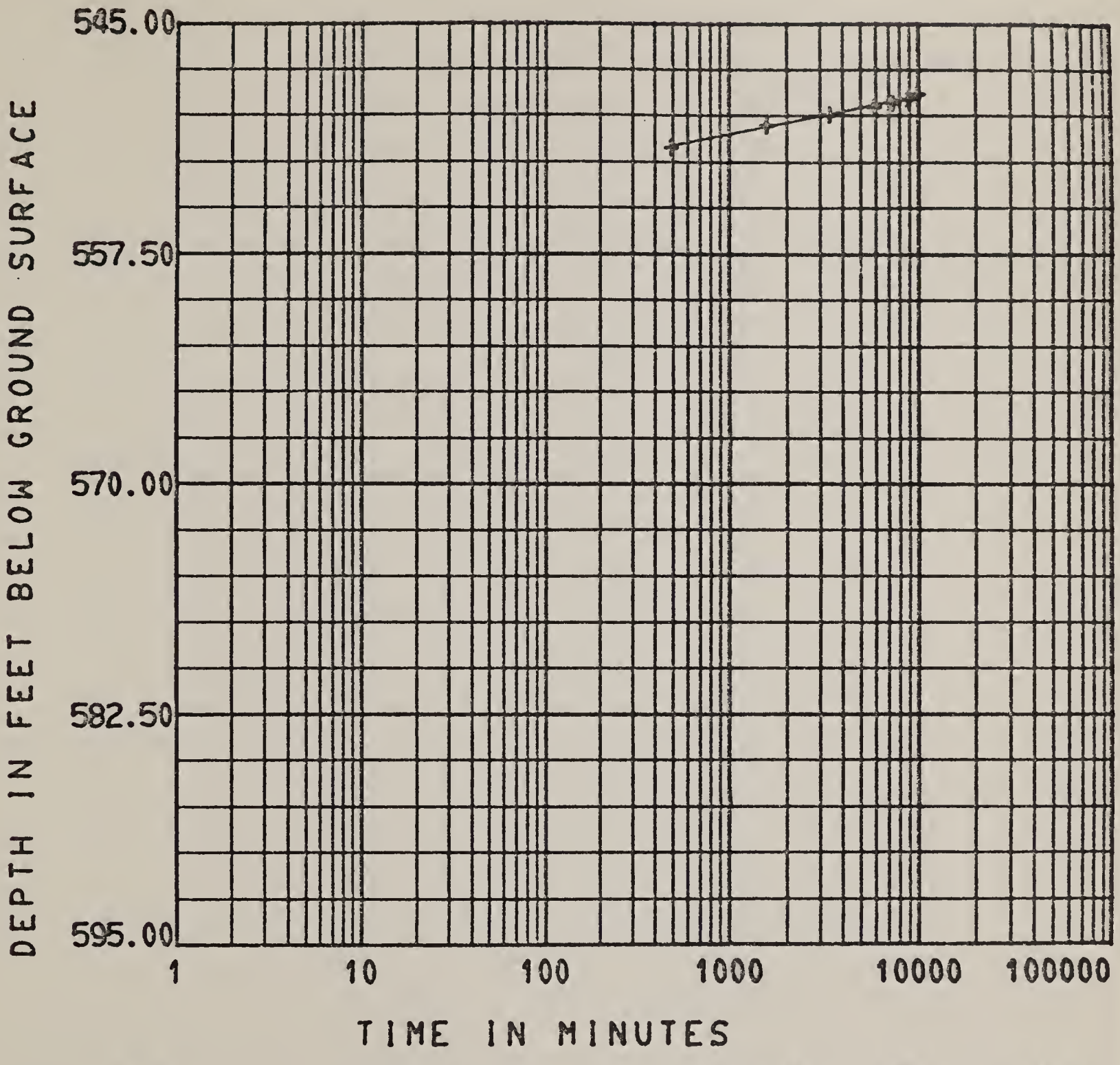
GS-13 GS-16 LOWR DRAWDOWN



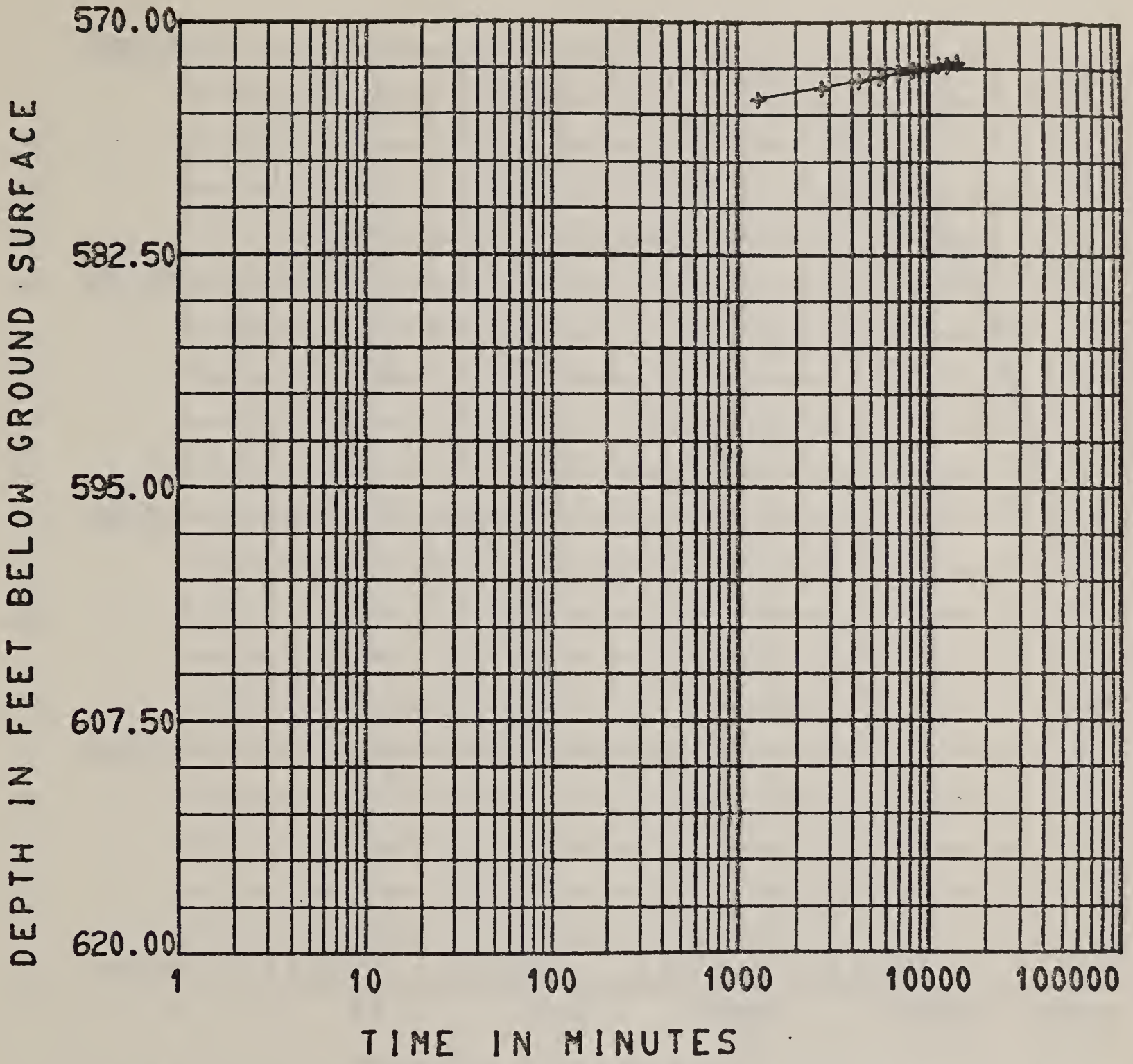
GS-13 GS-17 LOWR RECOVERY



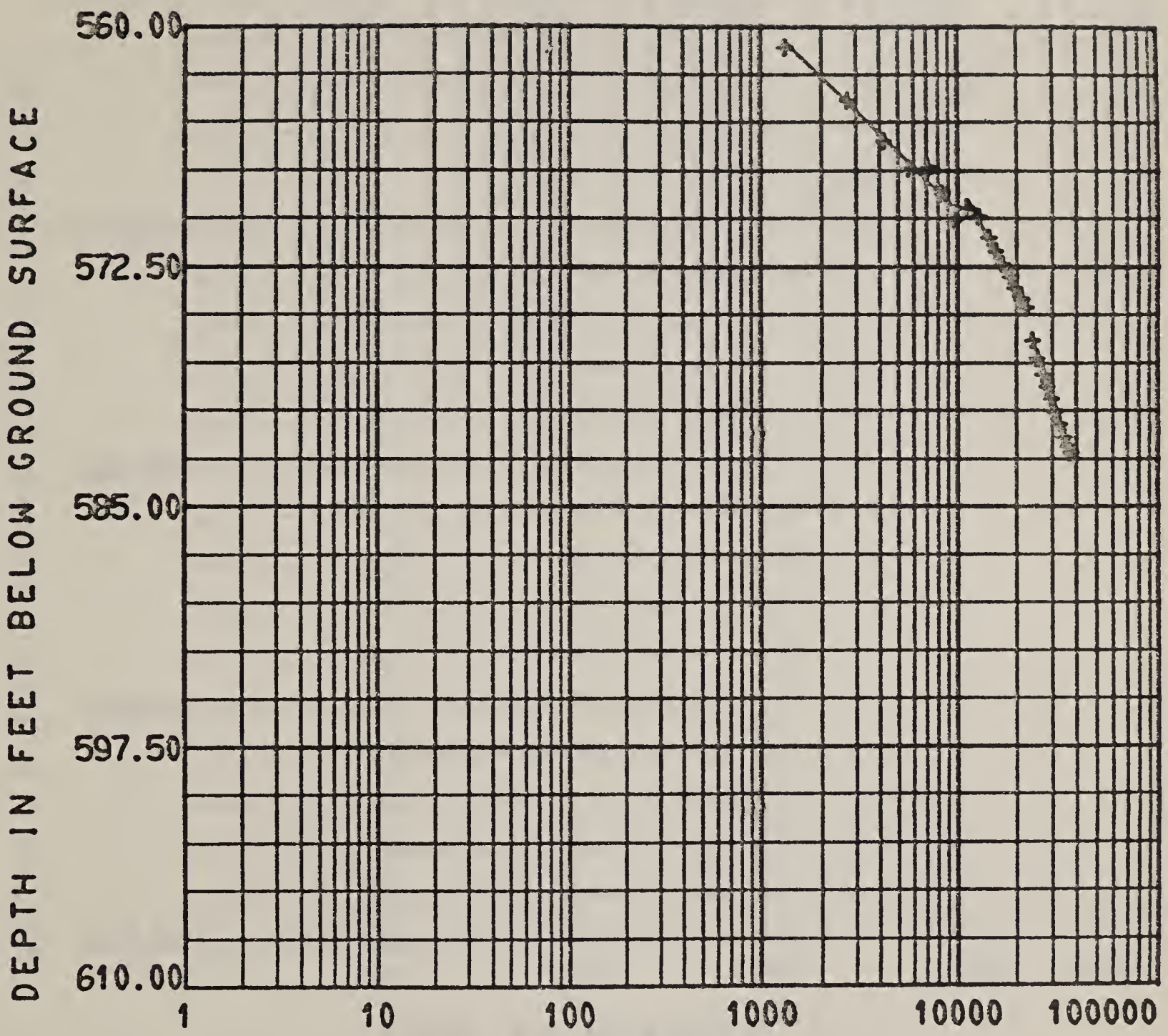
GS-13 GS-17 LOWR DRAWDOWN

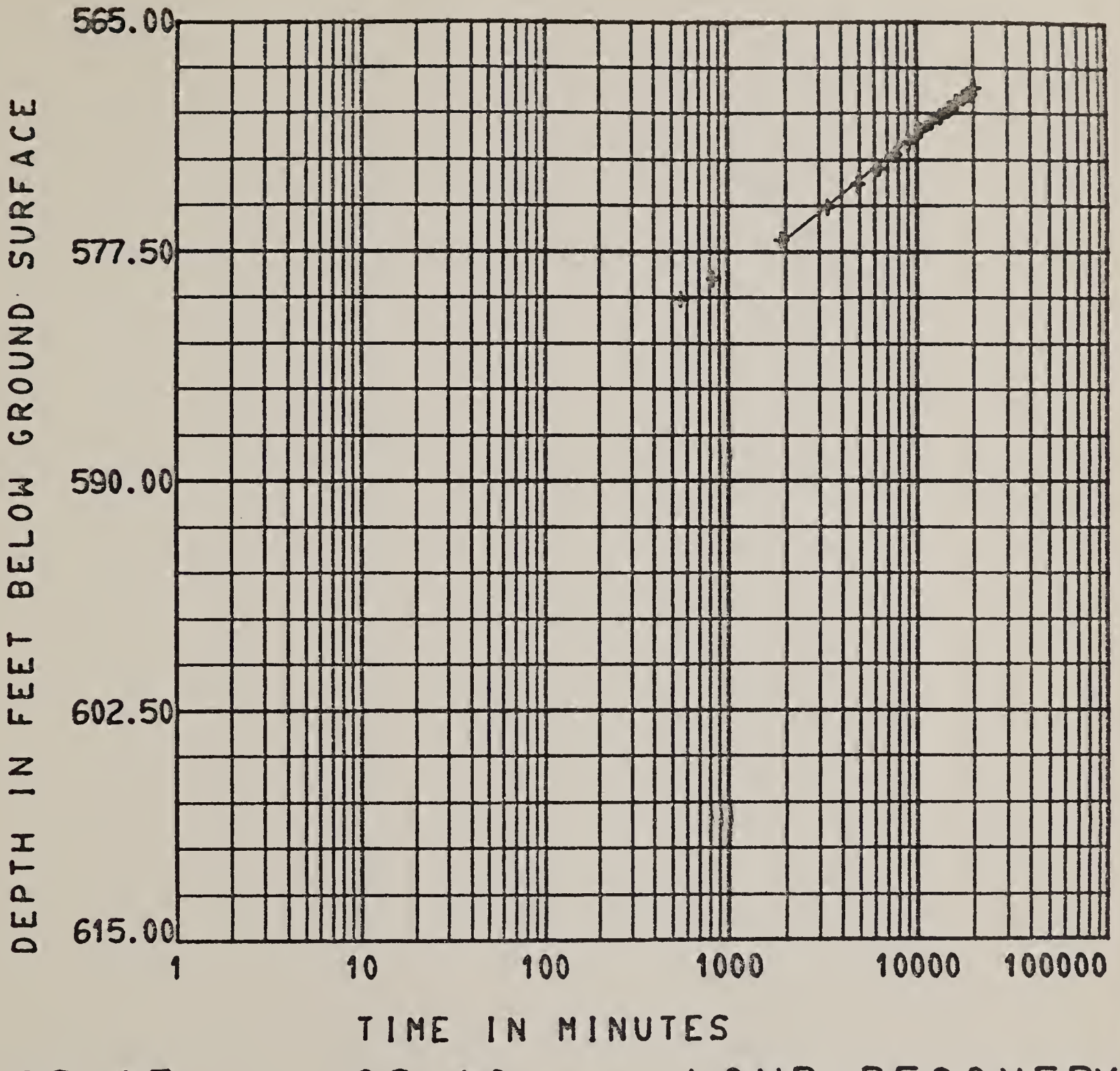


GS-13 GS-17 LOWR RECOVERY

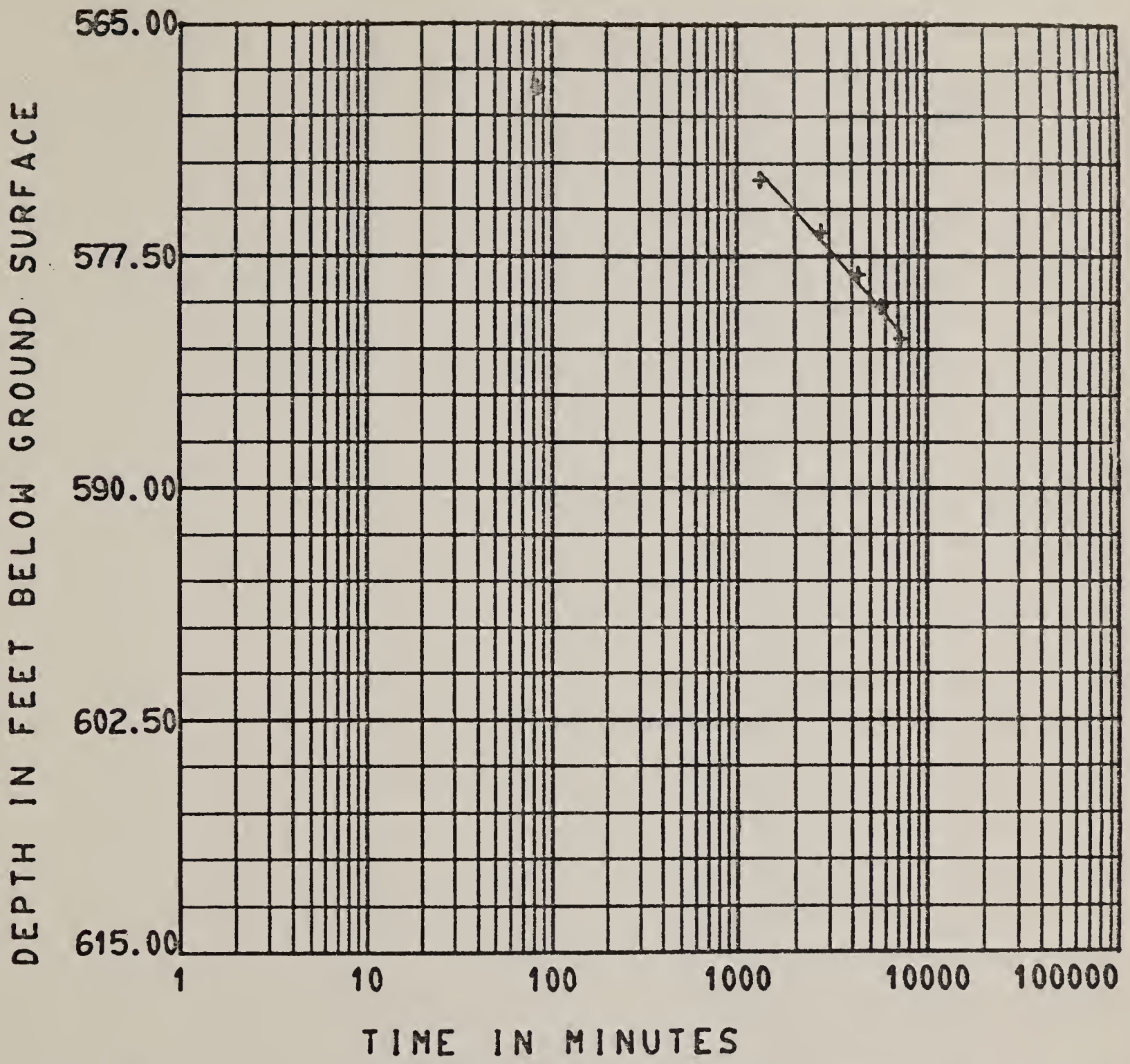


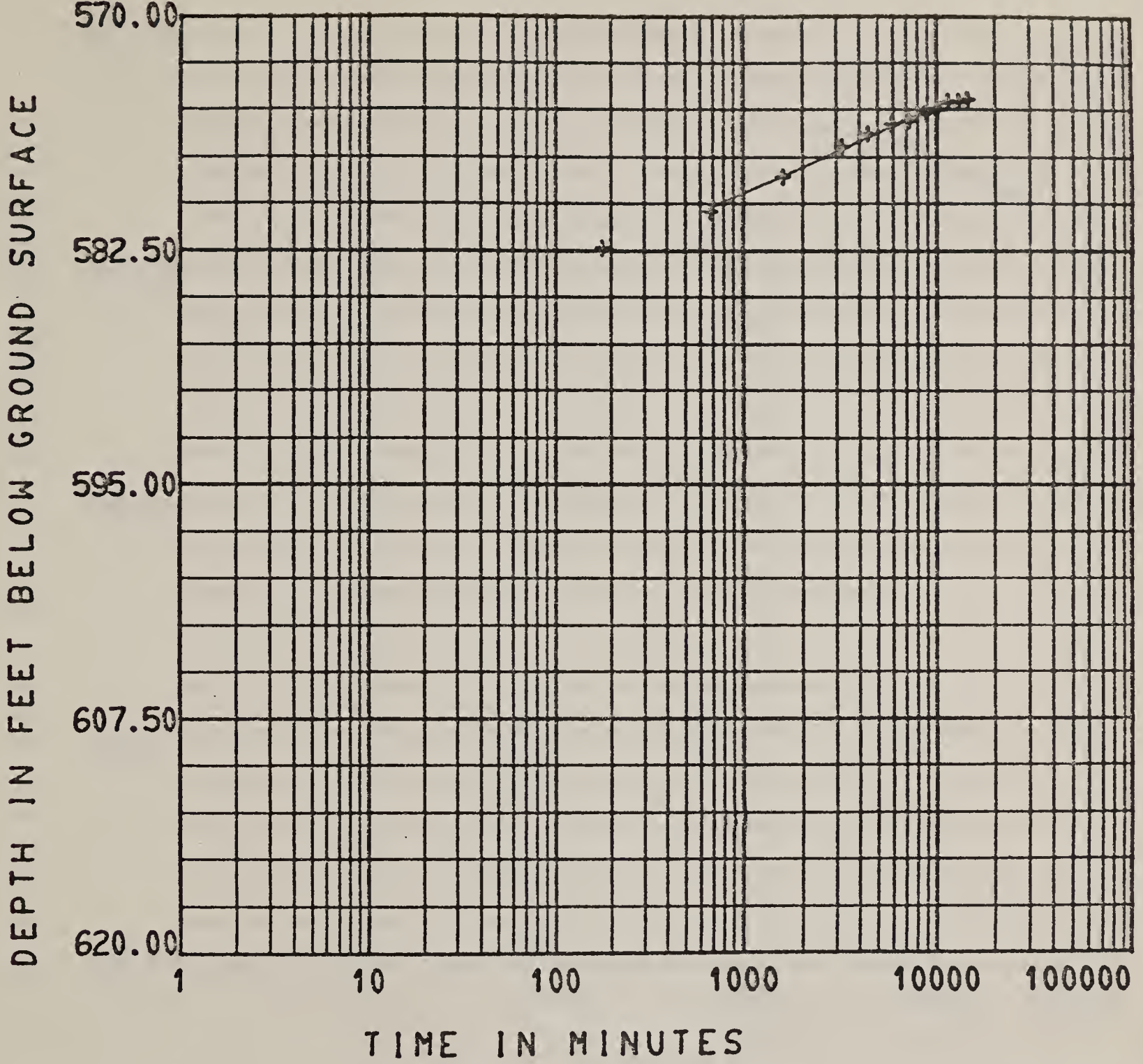
GS-13 GS-18 LOWR RECOVERY


560.00
572.50
585.00
597.50
610.00
DEPTH IN FEET BELOW GROUND SURFACE
1
10
100
1000
10000
100000
TIME IN MINUTES
GS-13
GS-19
LOWR DRAWDOWN

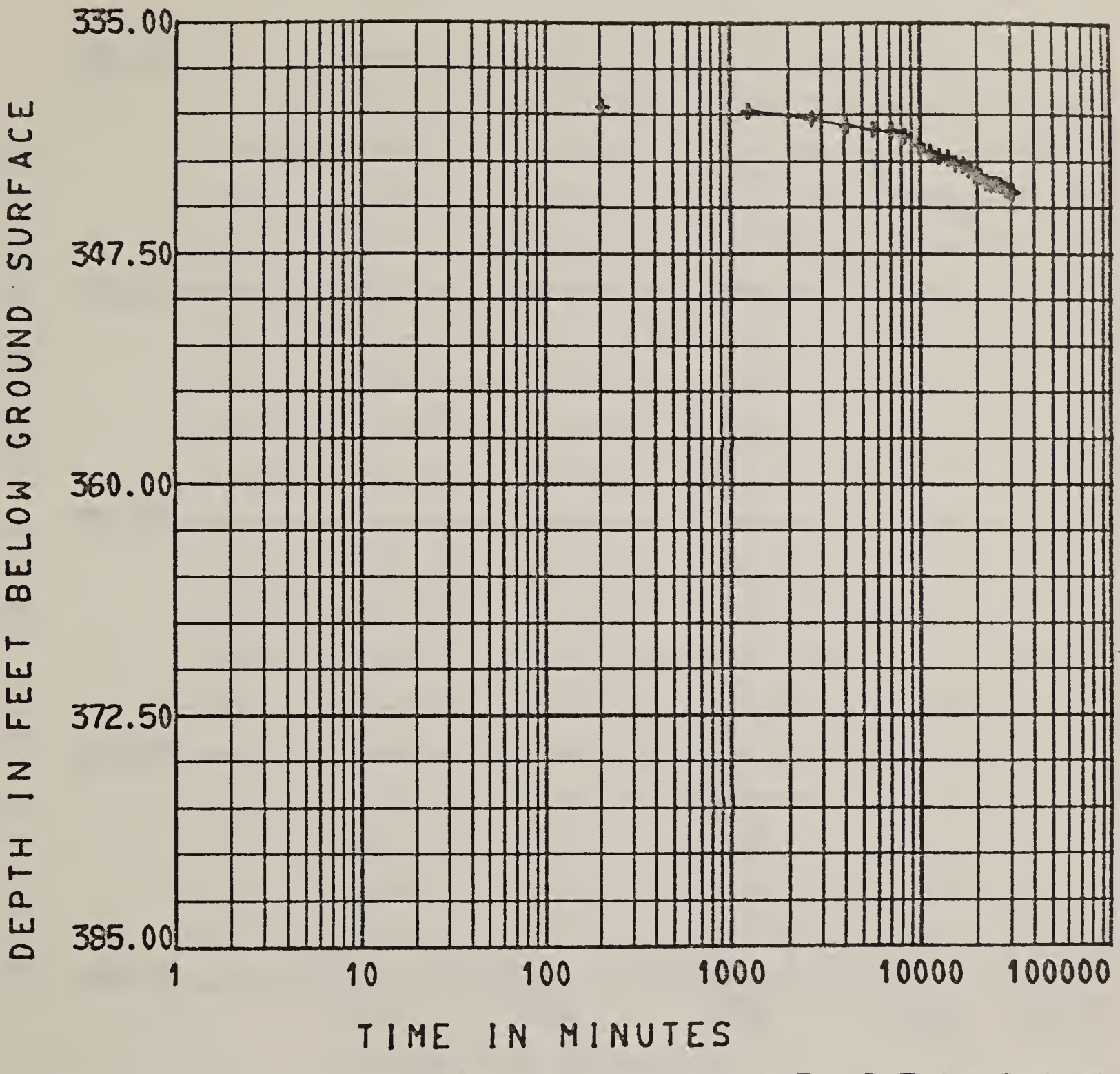


GS-13 GS-19 LOWR RECOVERY

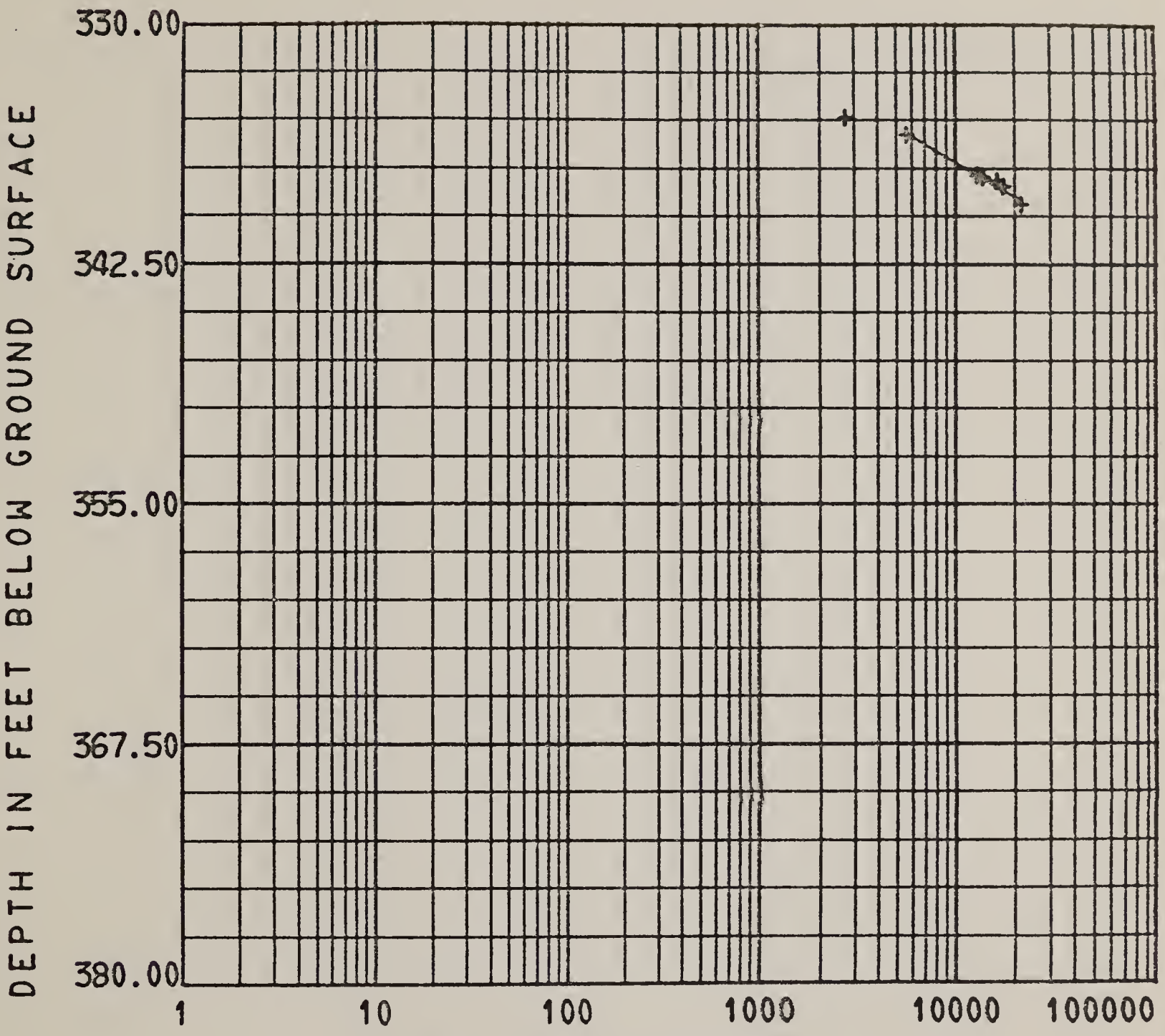

565.00
577.50
590.00
602.50
615.00
DEPTH IN FEET BELOW GROUND SURFACE
1
10
100
1000
10000
100000
TIME IN MINUTES
GS-13
GS-19
LOWR DRAWDOWN

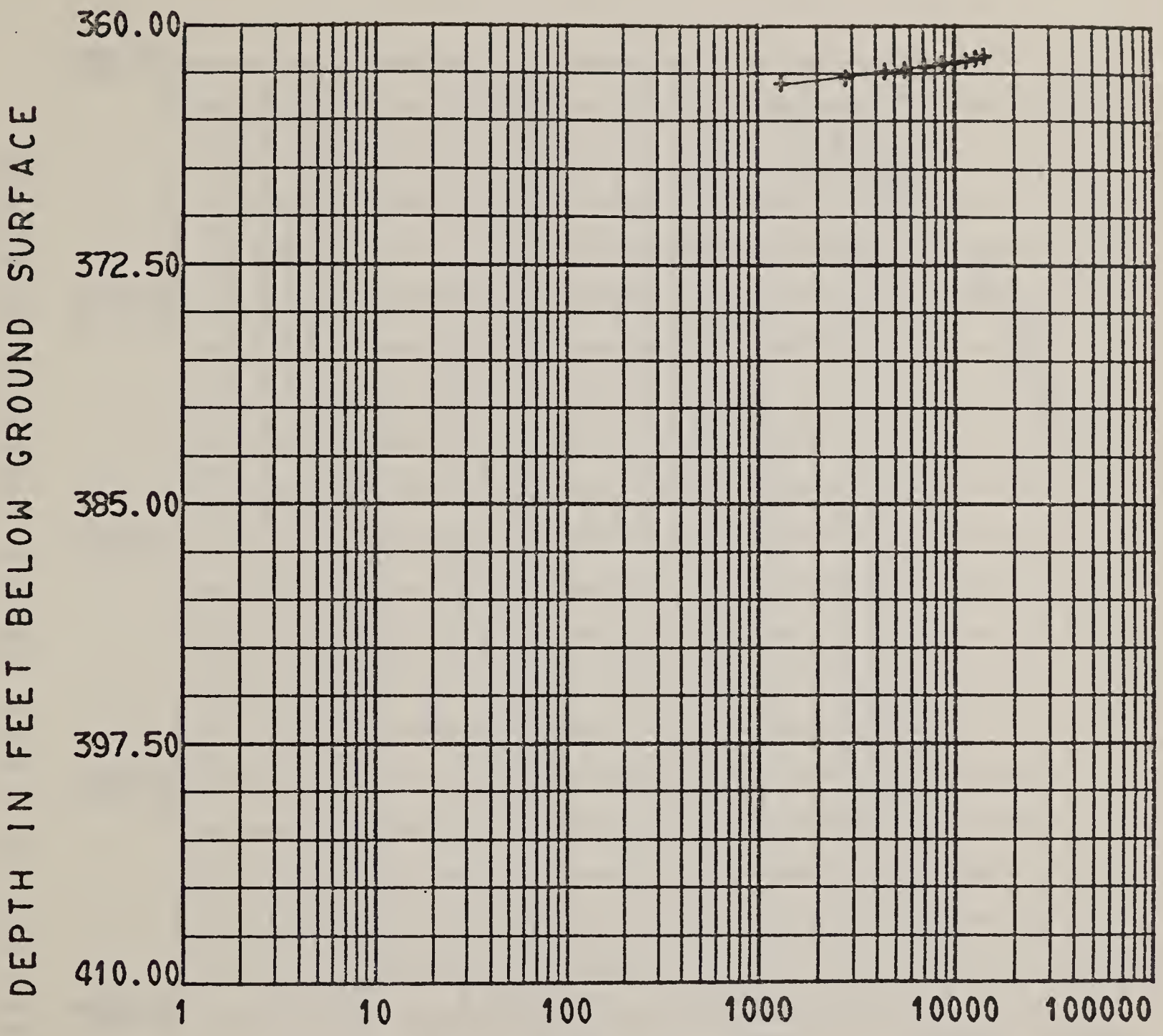


GS-13 GS-19 LOWR RECOVERY

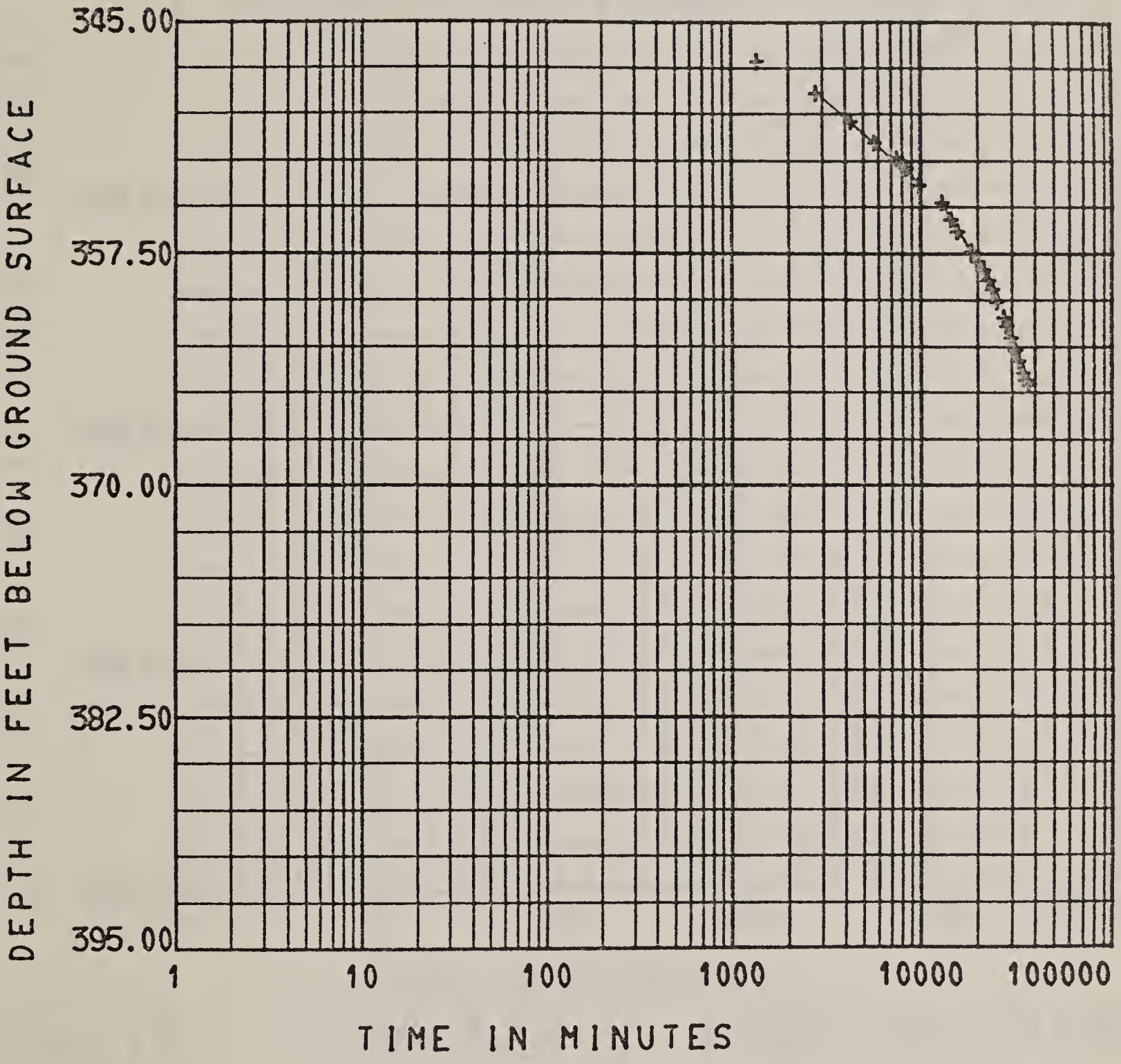


GS-15 GS-16 LOWR DRAWDOWN

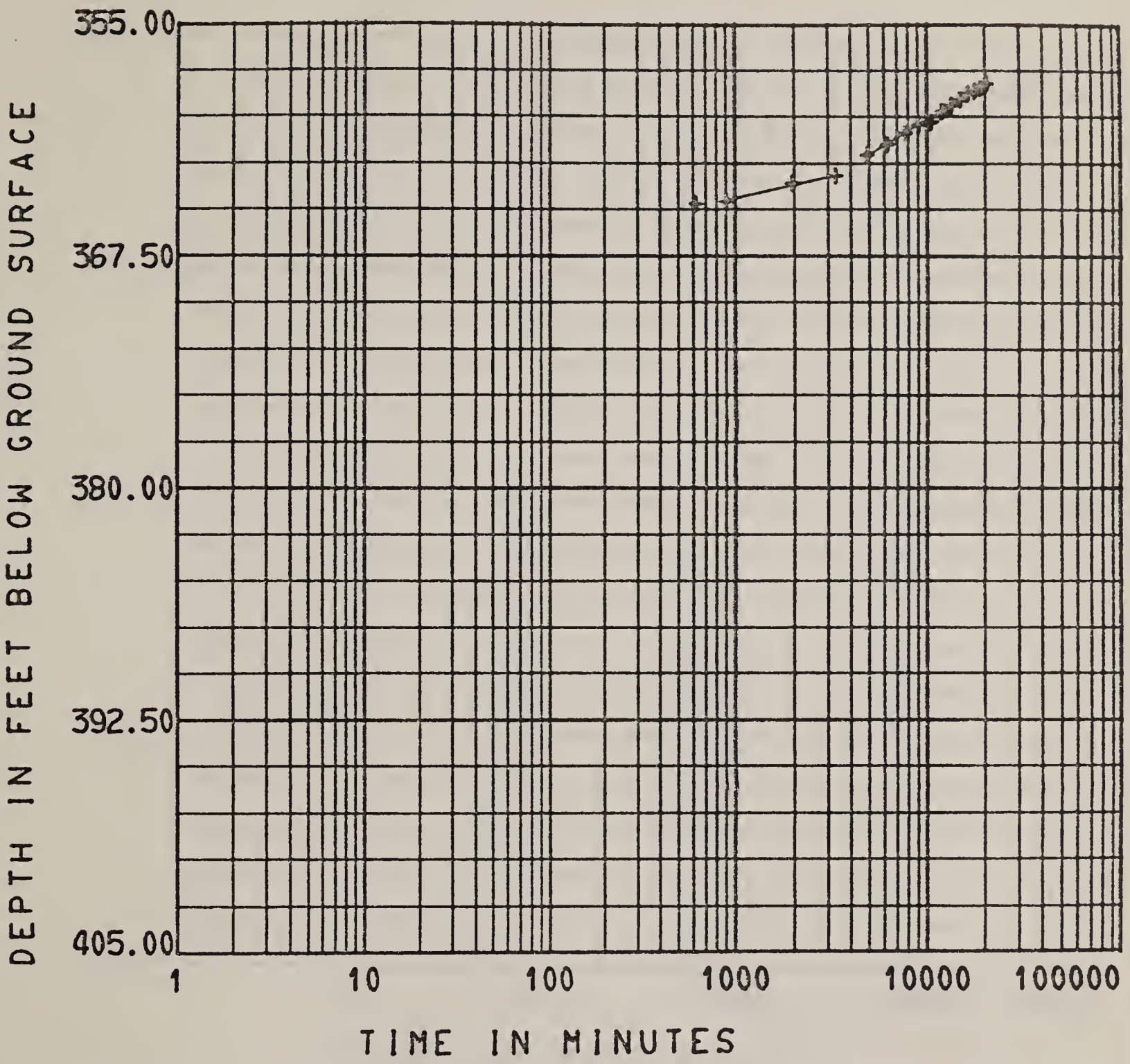

DEPTH IN FEET BELOW GROUND SURFACE
330.00
342.50
355.00
367.50
380.00
1
10
100
1000
10000
100000
TIME IN MINUTES
GS-15
GS-17
LOWR DRAWDOWN



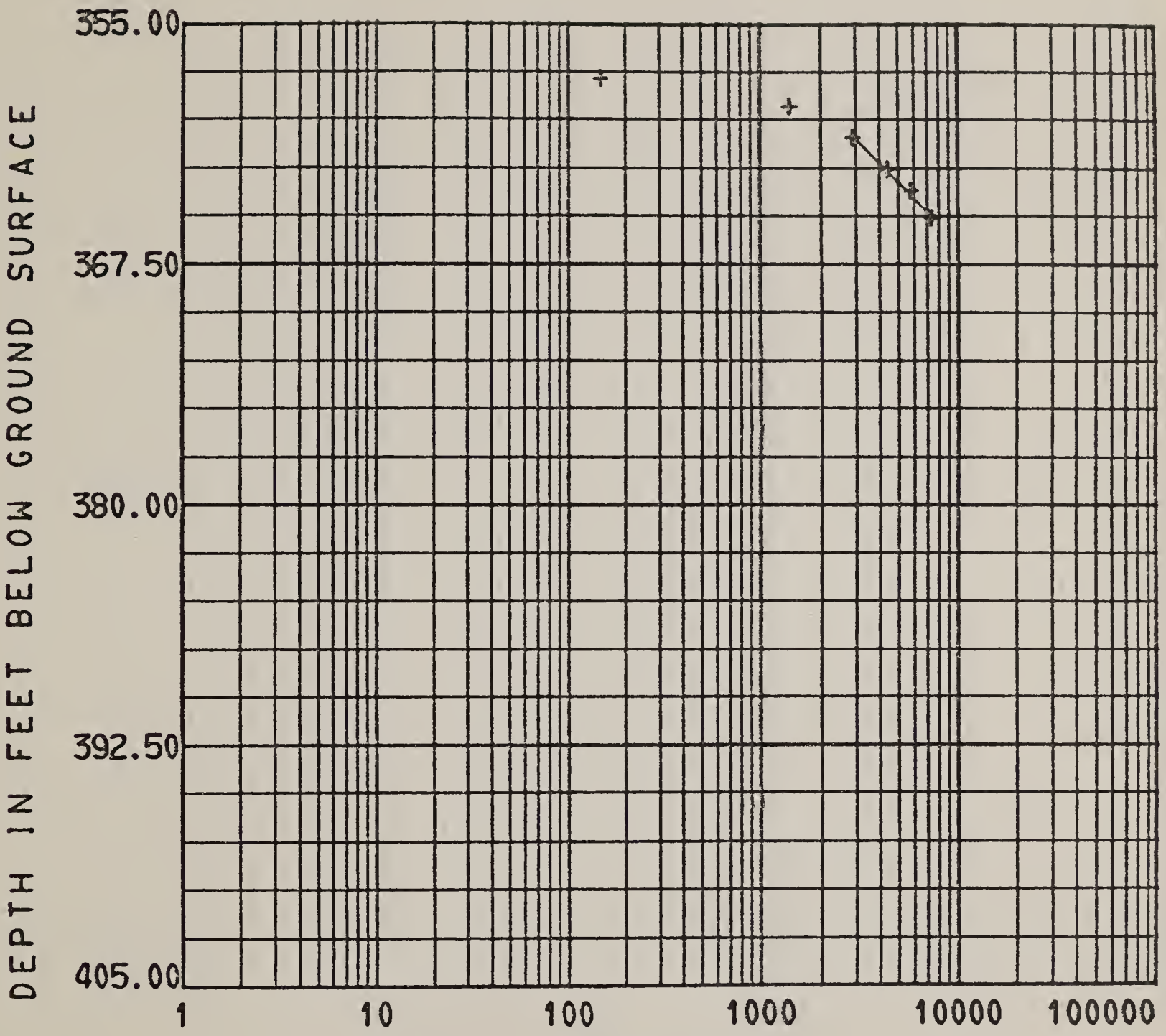
GS-15 GS-18 LOWR RECOVERY



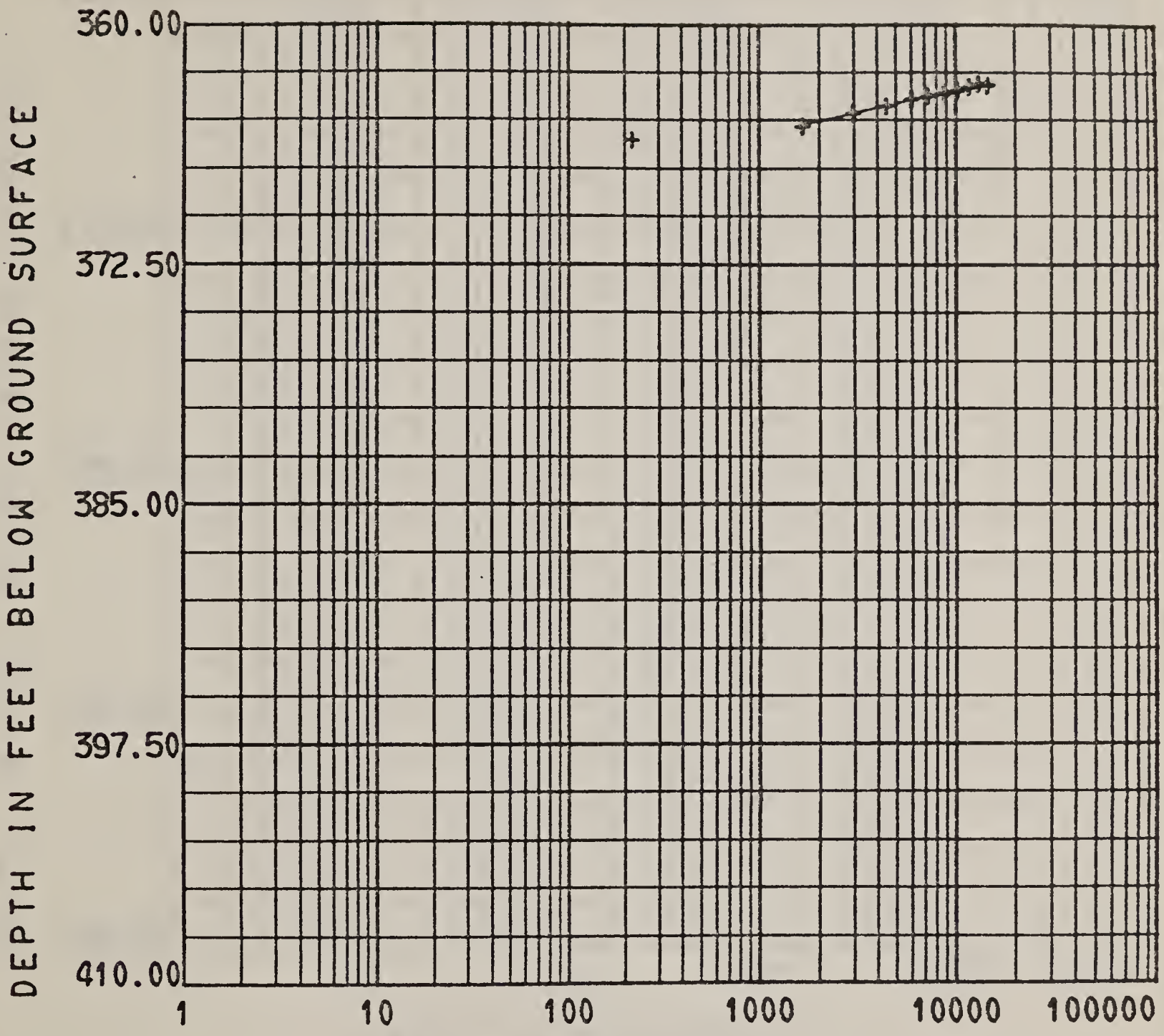
GS-15 GS-19 LOWR DRAWDOWN



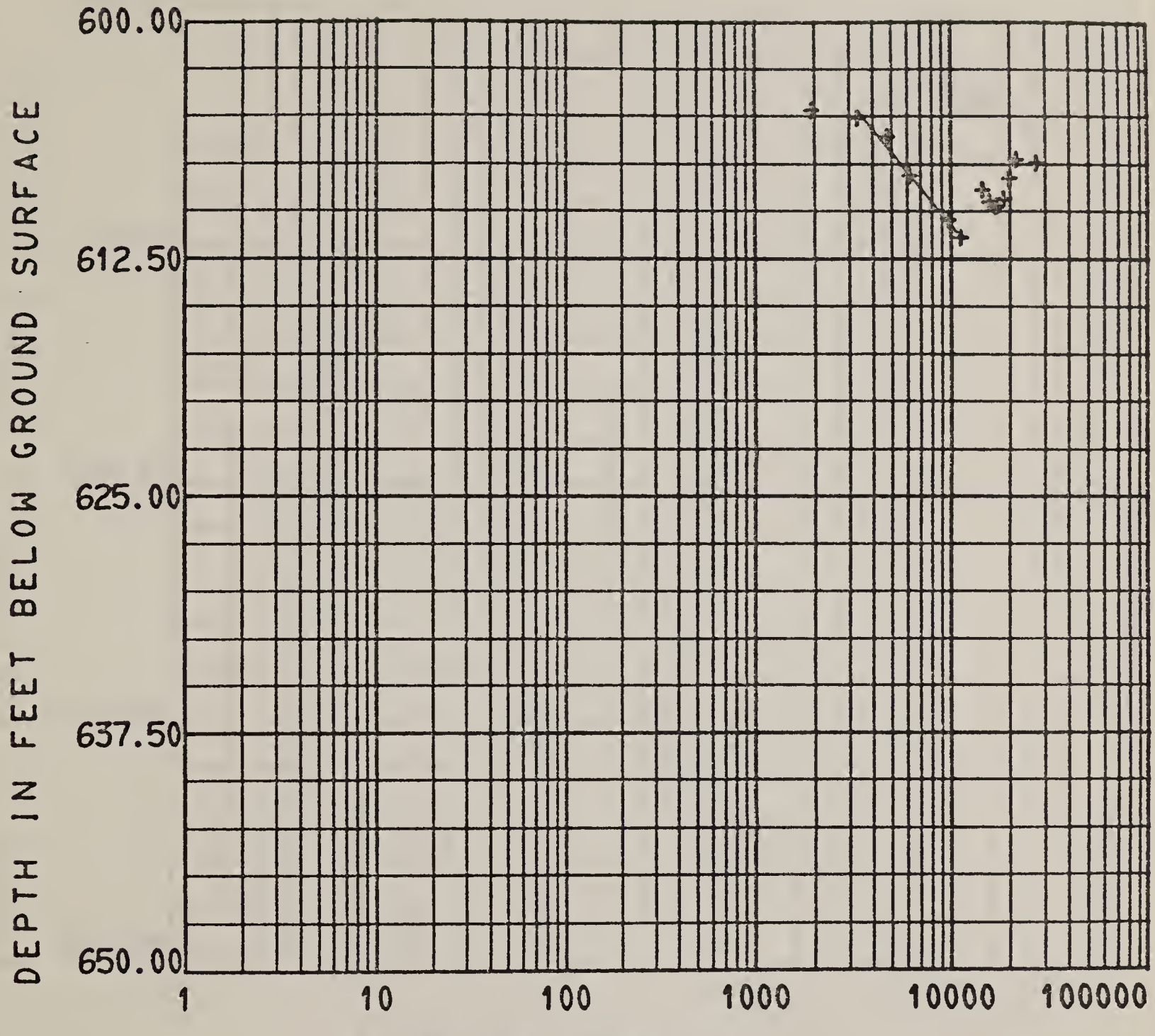
GS-15 GS-19 LOWR RECOVERY



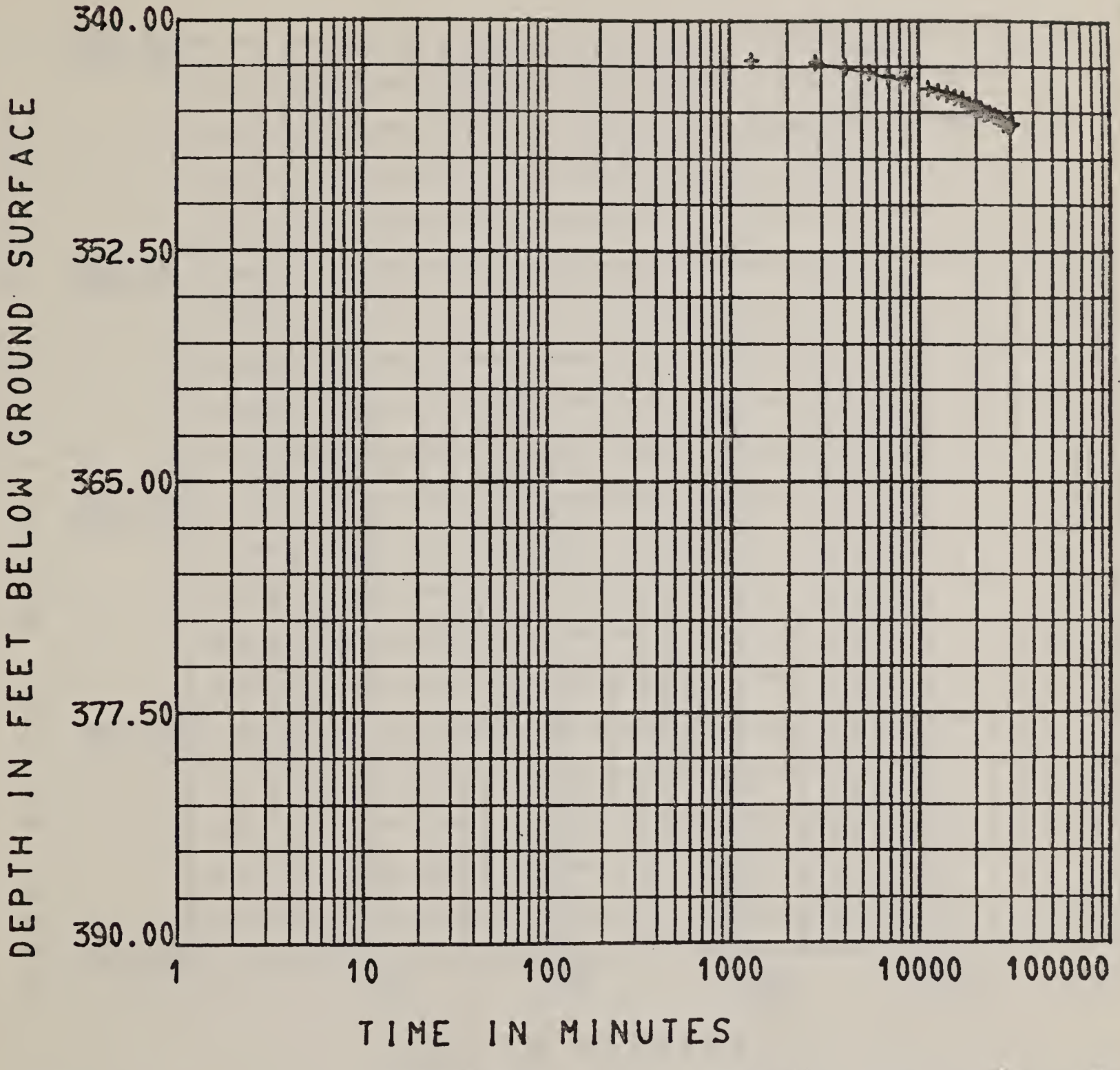
GS-15 GS-19 LOWR DRAWDOWN

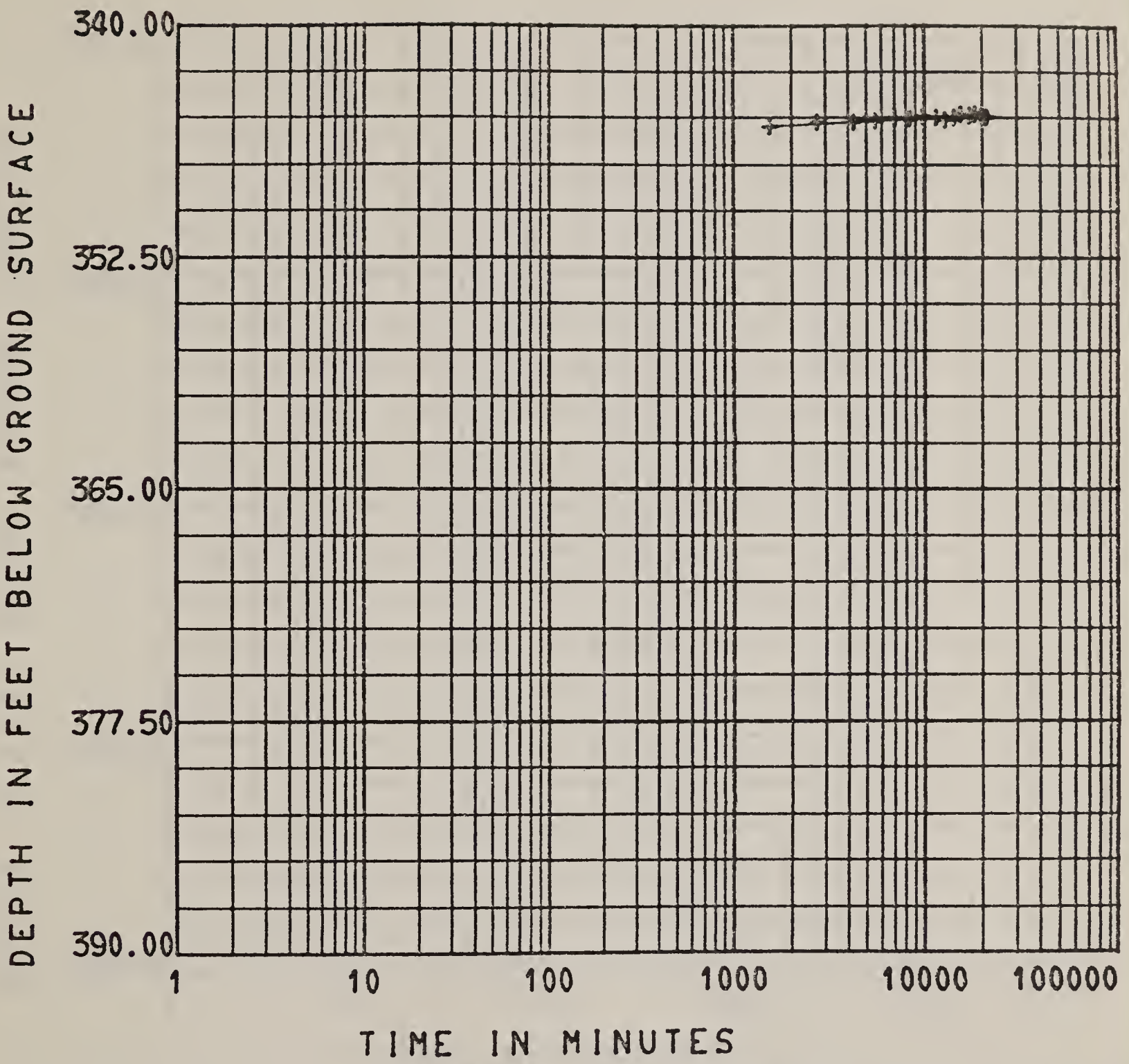


GS-15 GS-19 LOWR RECOVERY

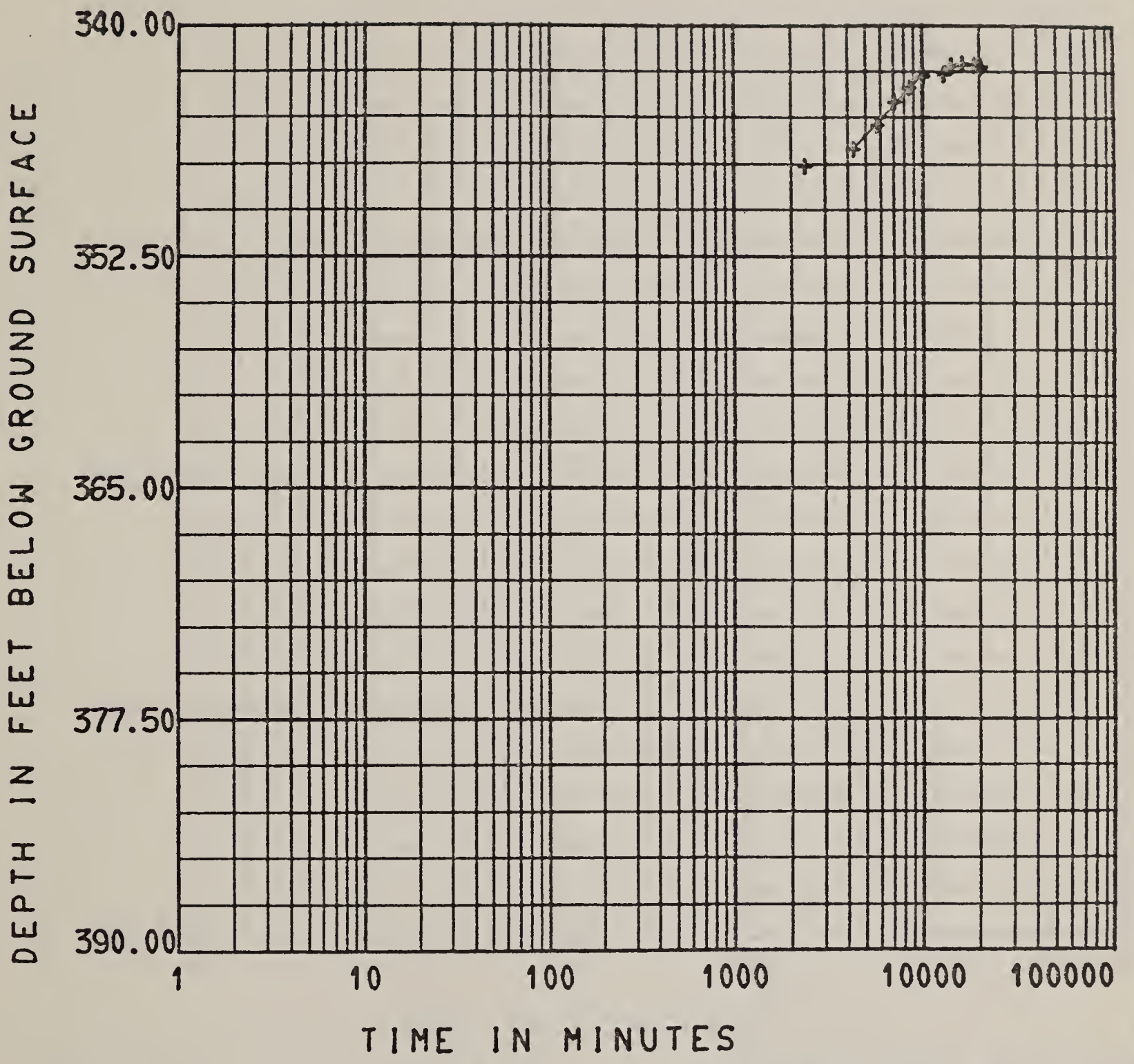


GS-16 GS-19 LOWR DRAWDOWN

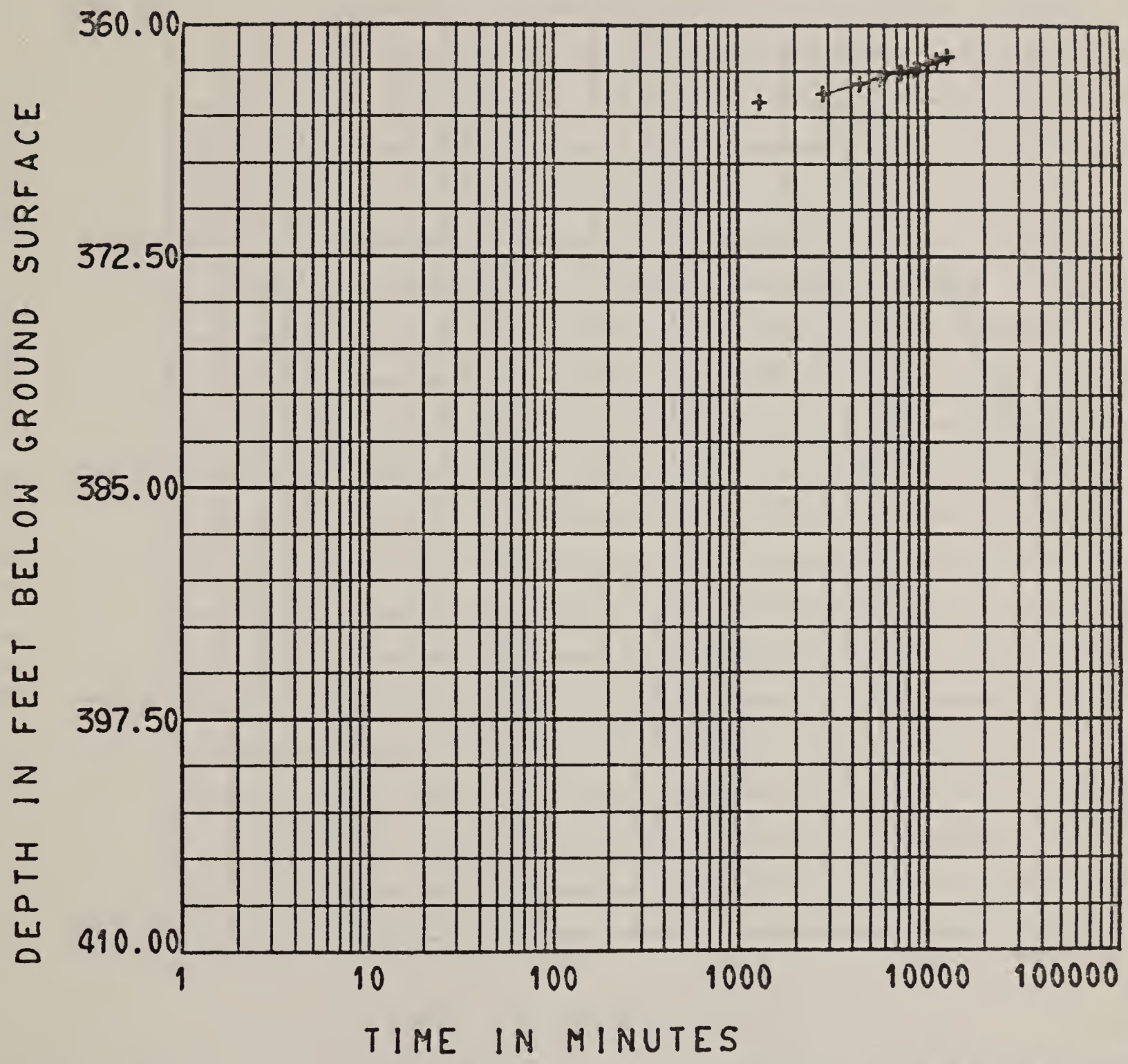

340.00
352.50
365.00
377.50
390.00
DEPTH IN FEET BELOW GROUND SURFACE
1
10
100
1000
10000
100000
TIME IN MINUTES
GS-17
GS-16
LOWR DRAWDOWN



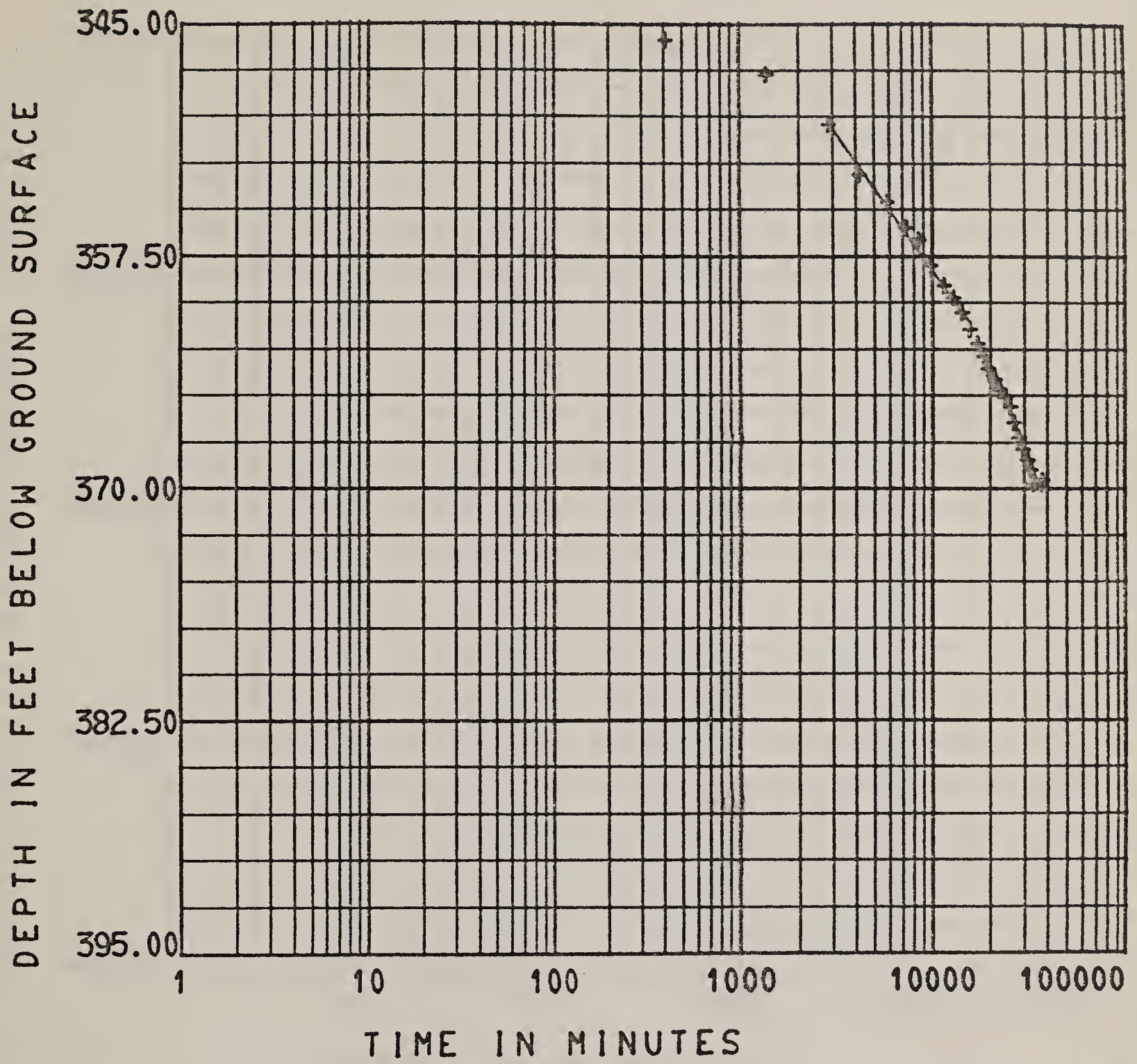
GS-17 GS-16 LOWR RECOVERY



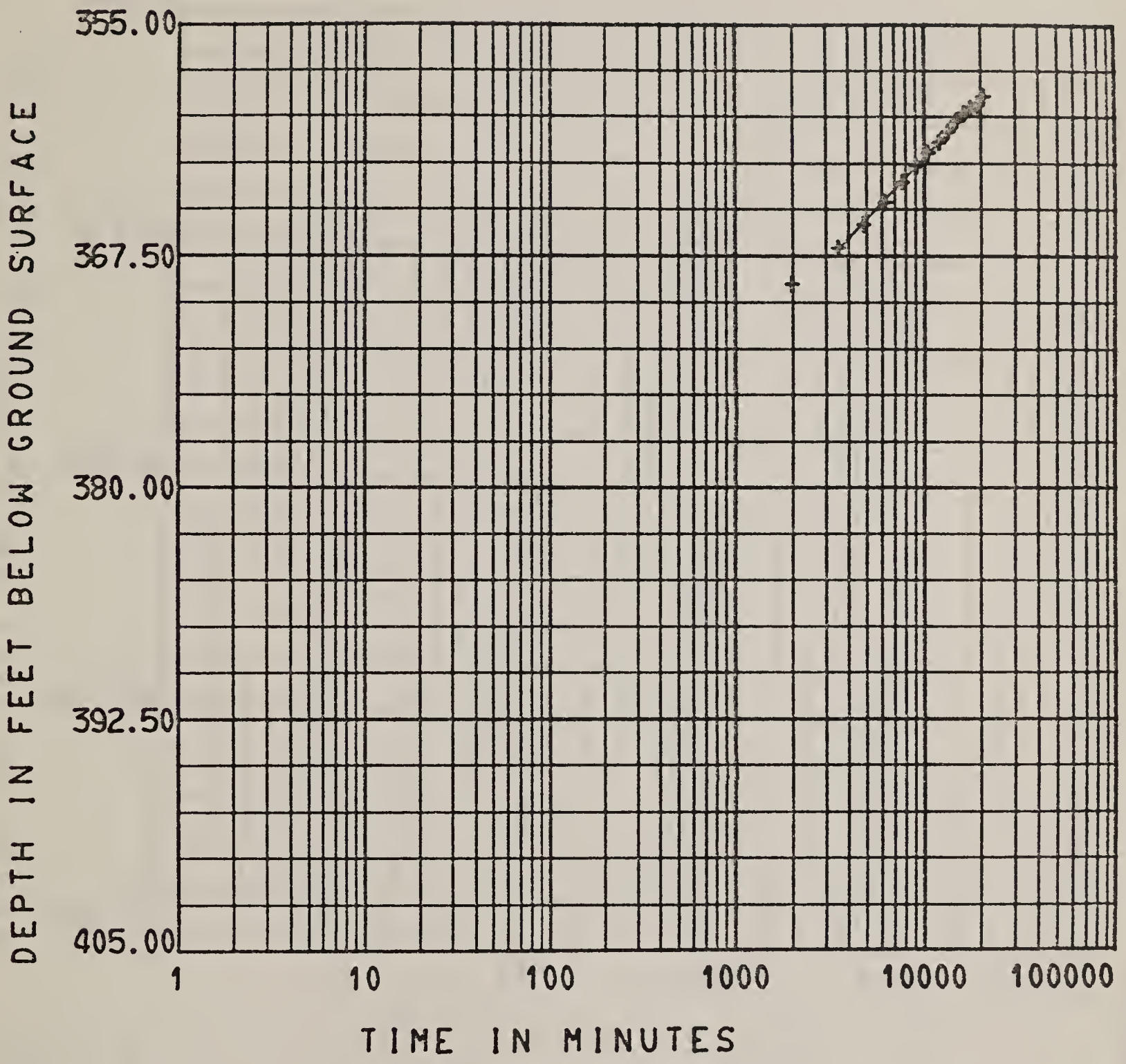
GS-17 GS-17 LOWR RECOVERY



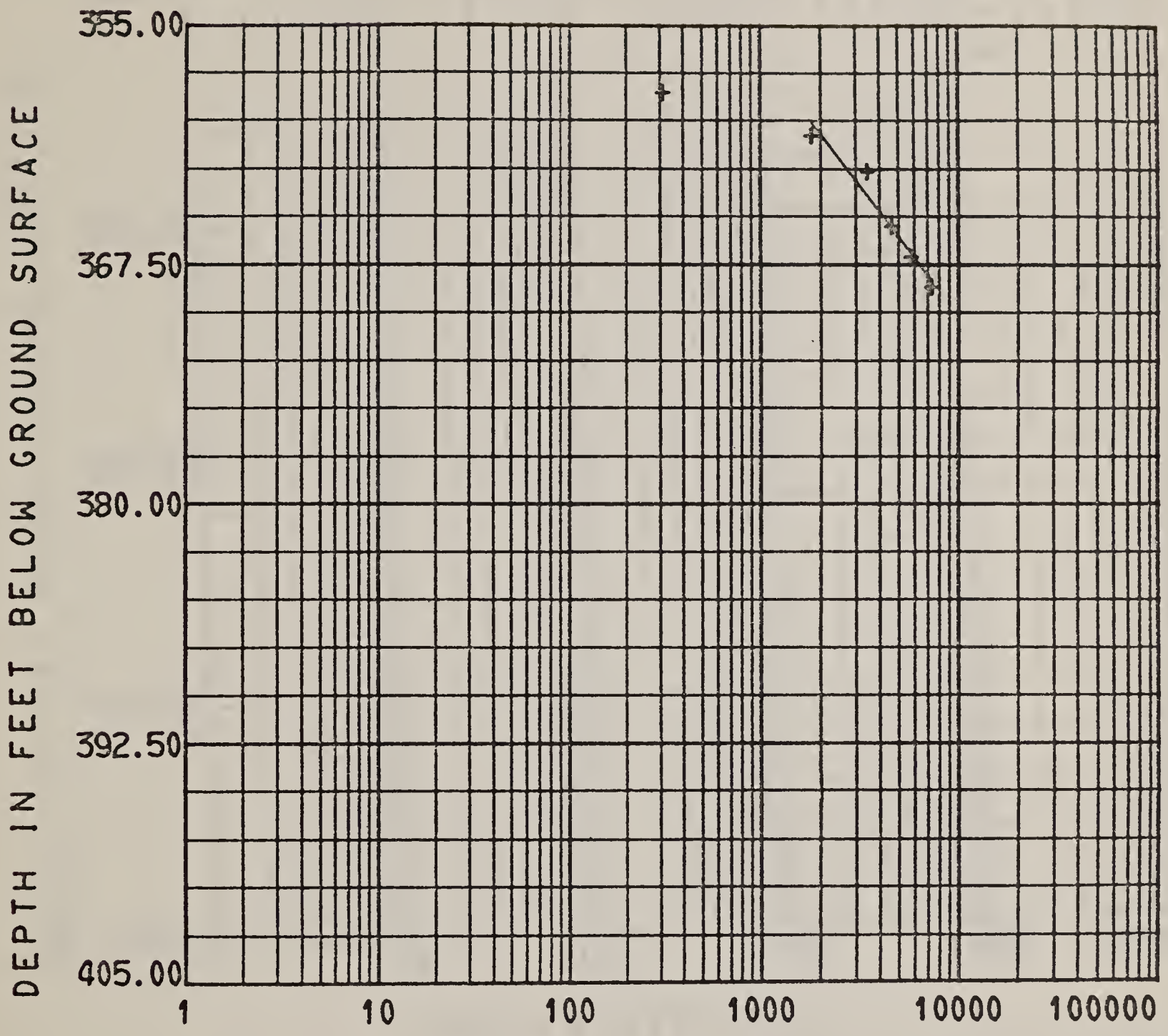
GS-17 GS-18 LOWR RECOVERY



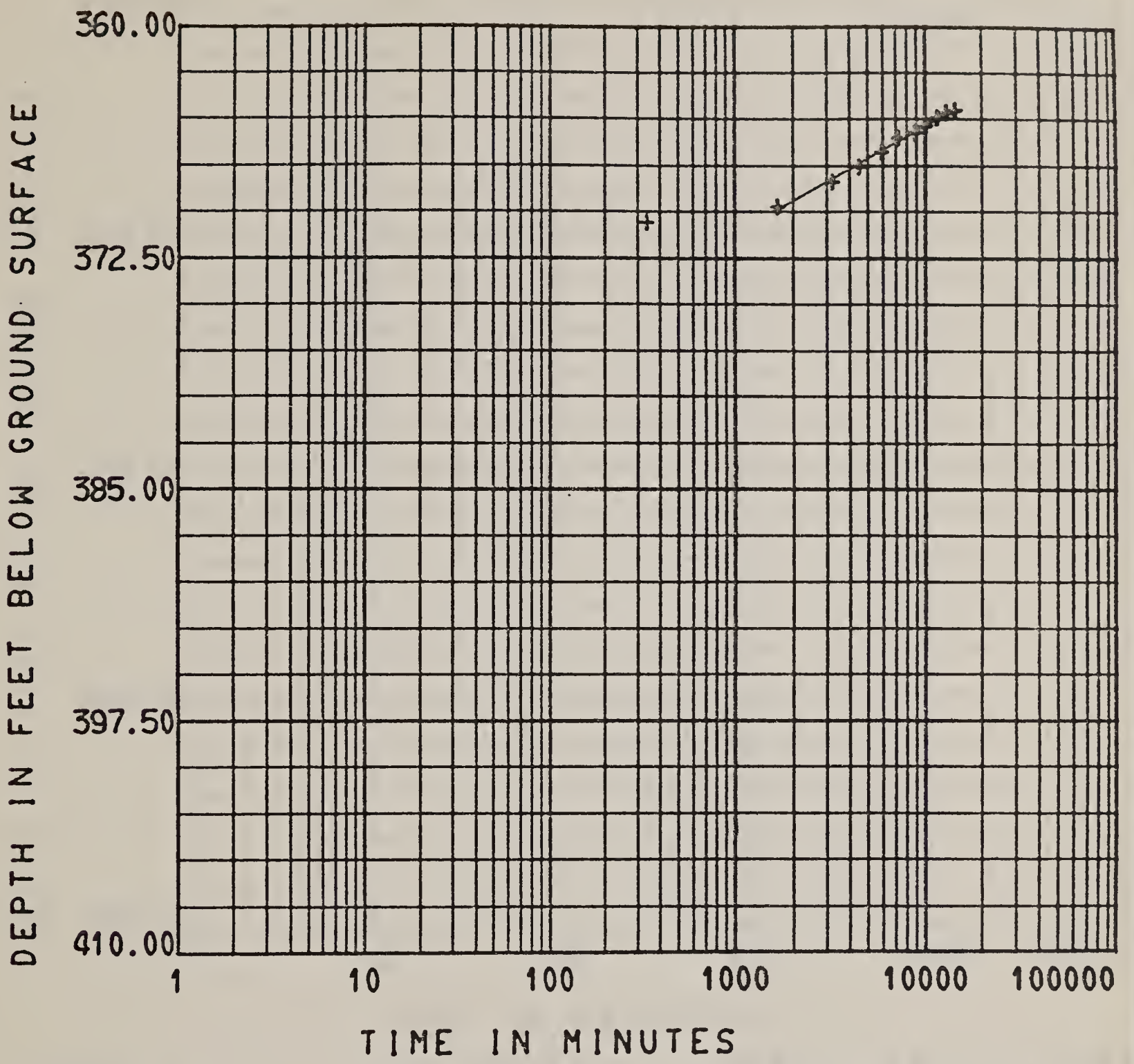
GS-17 GS-19 LOWR DRAWDOWN



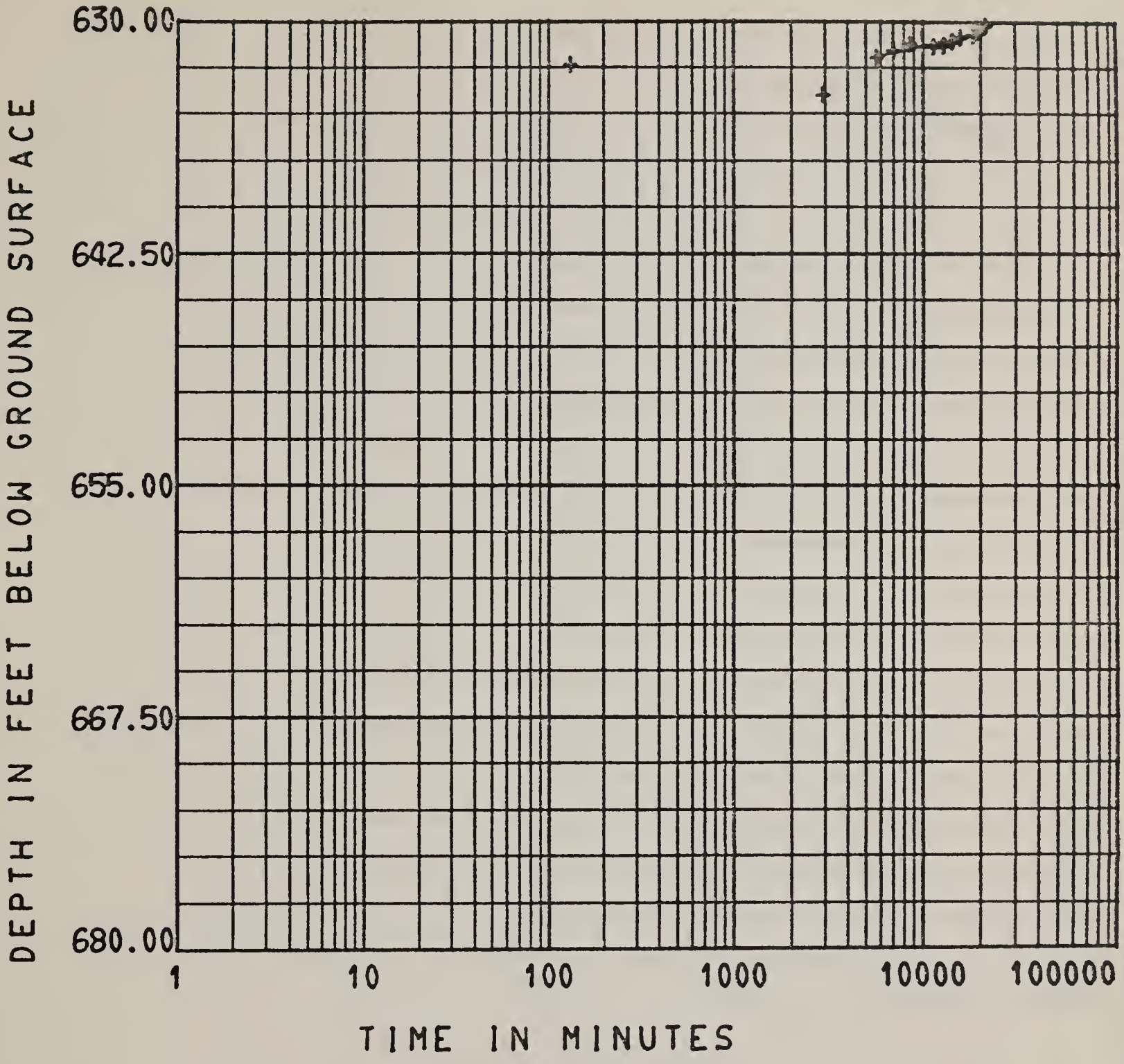
GS-17 GS-19 LOWR RECOVERY



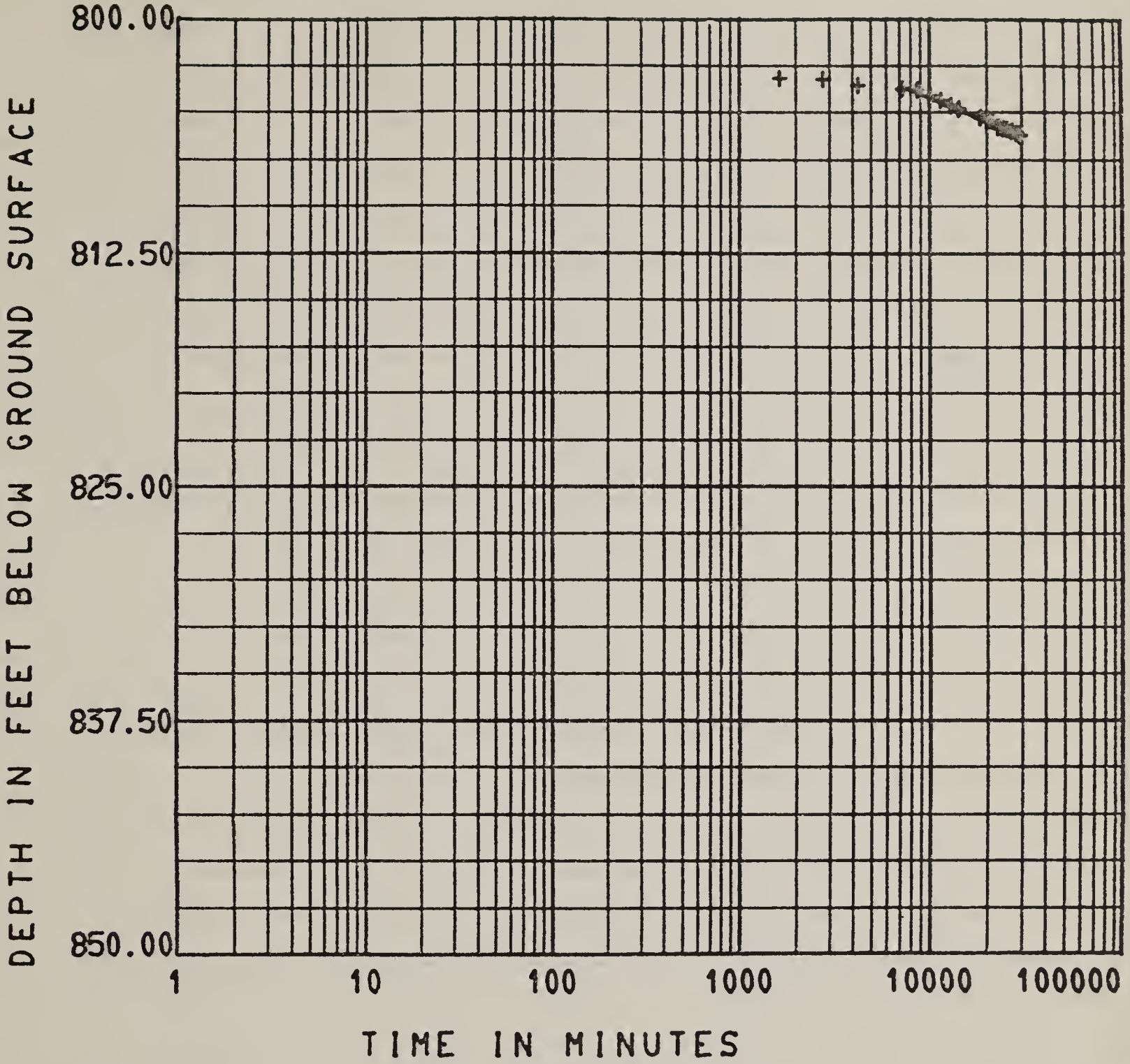
GS-17 GS-19 LOWR DRAWDOWN



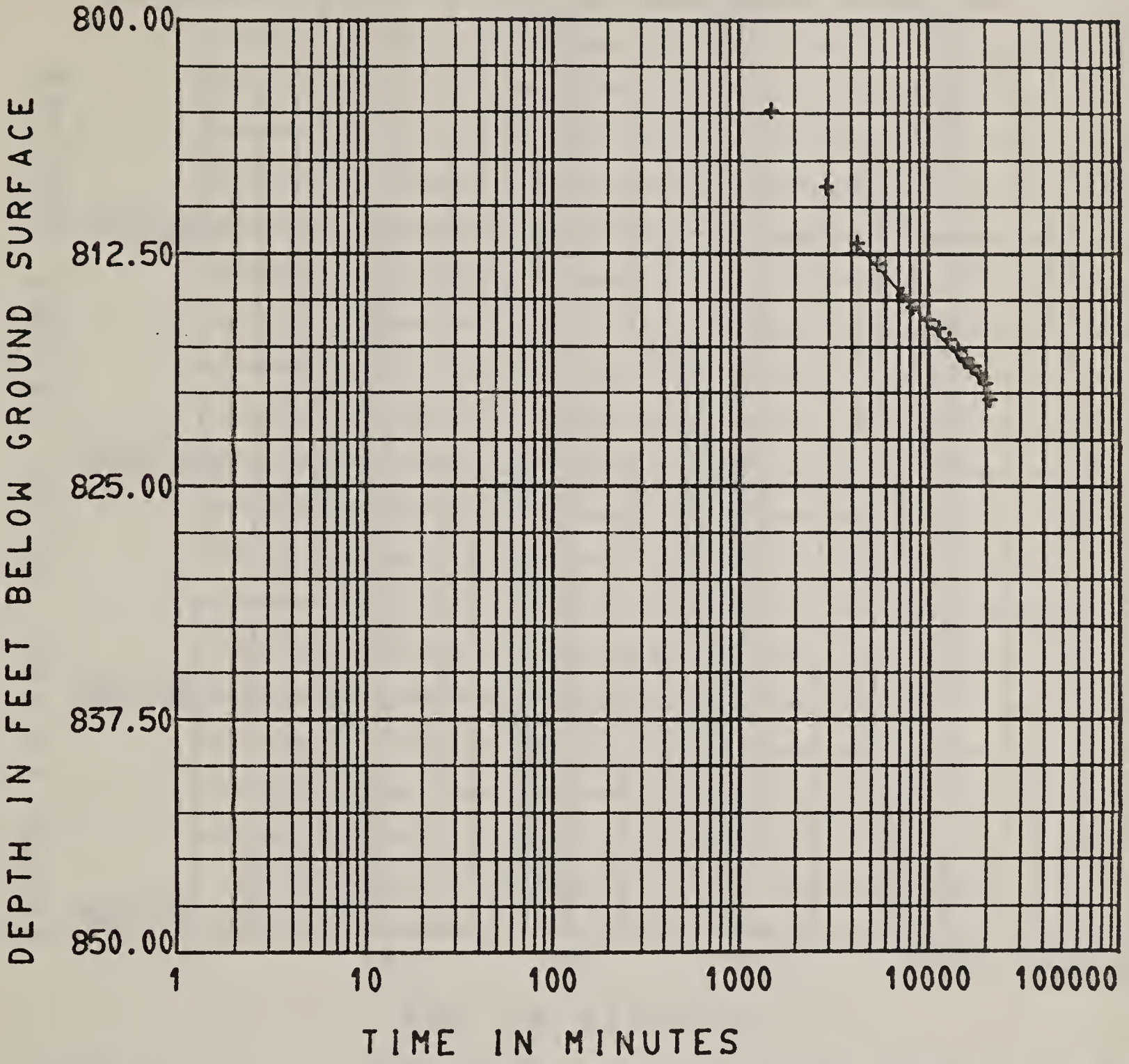
GS-17 GS-19 LOWR RECOVERY



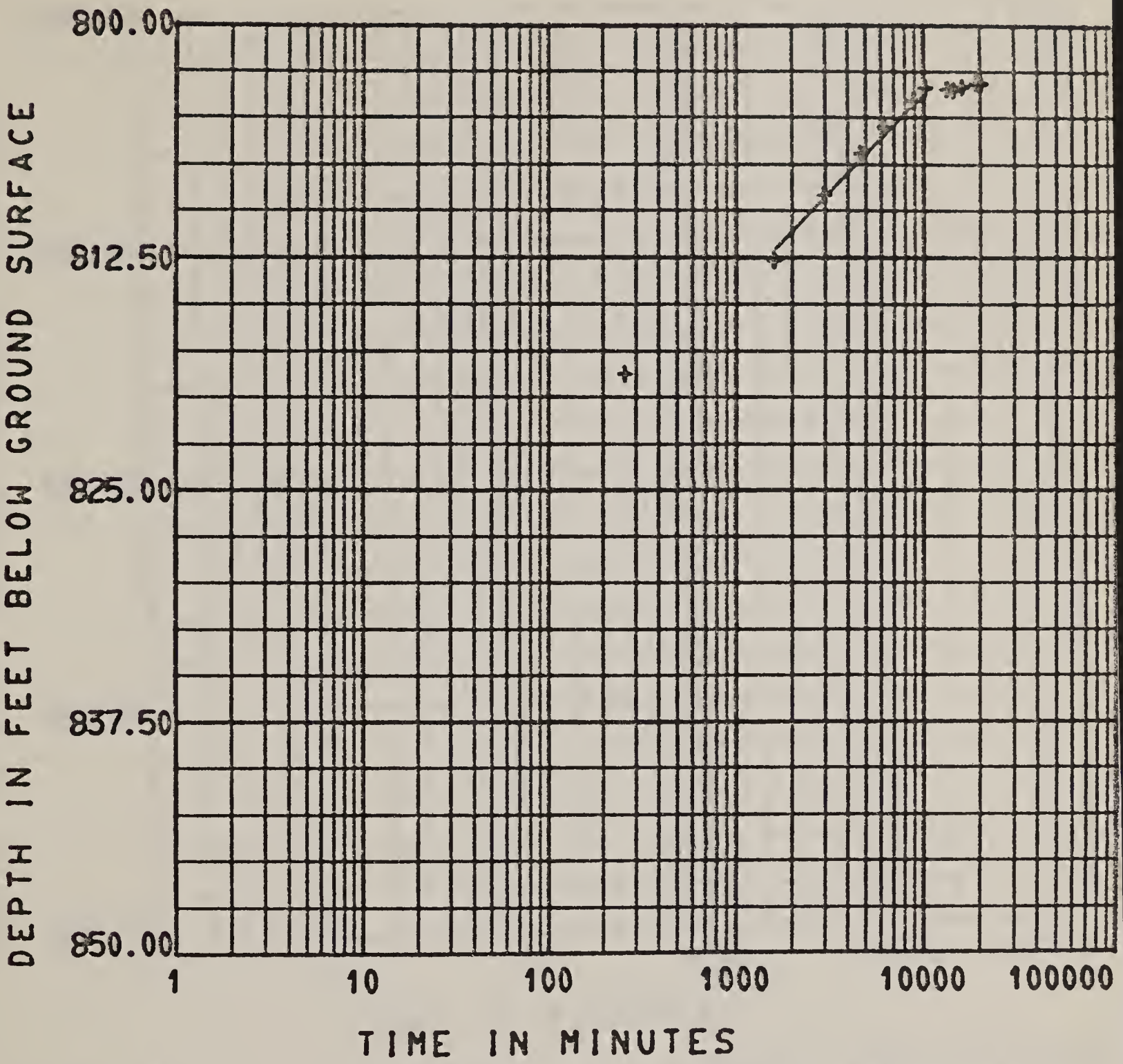
GSM-1 CE 705A UPPR RECOVERY



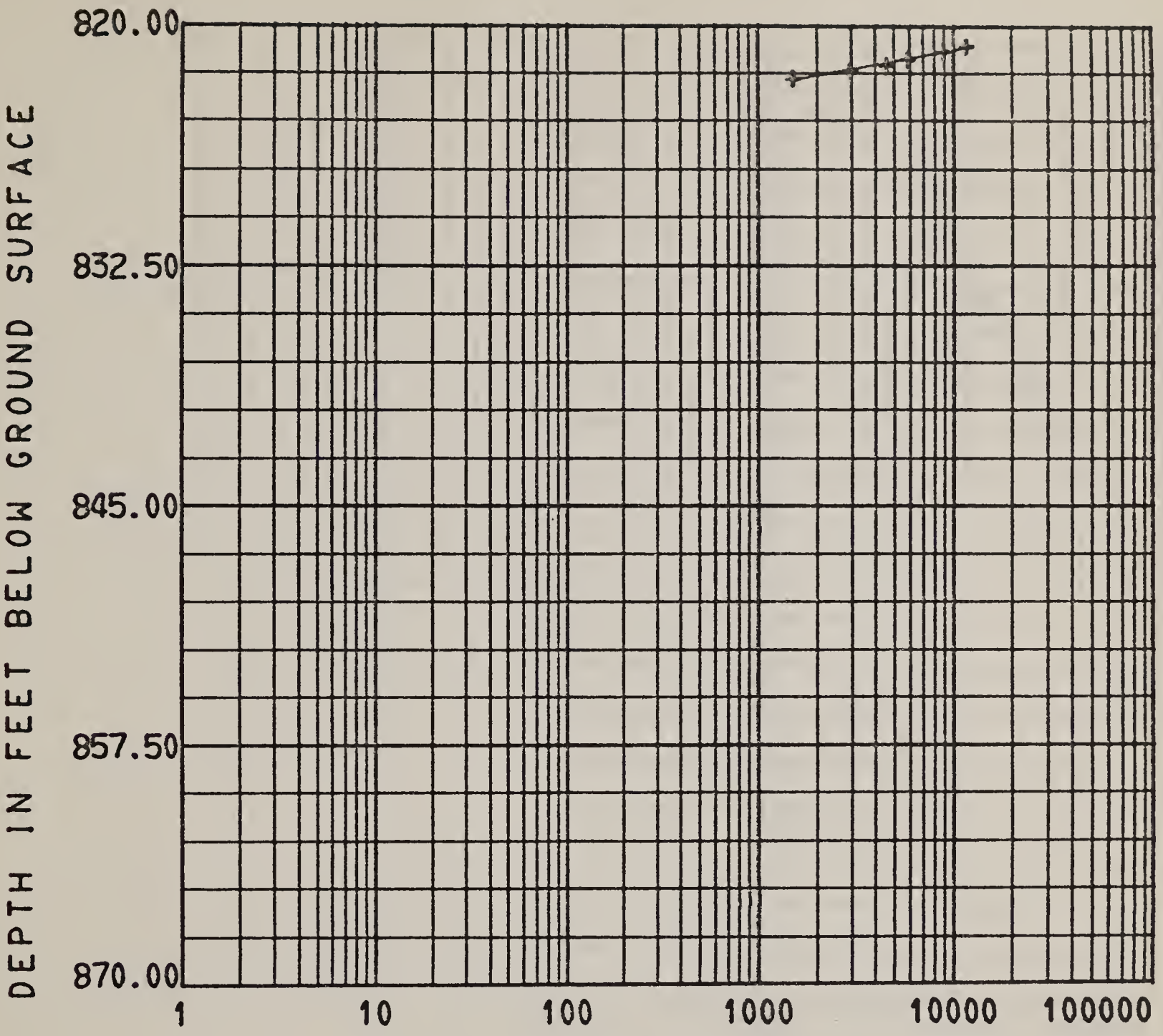
GSM-1 GS-16 LOWR DRAWDOWN



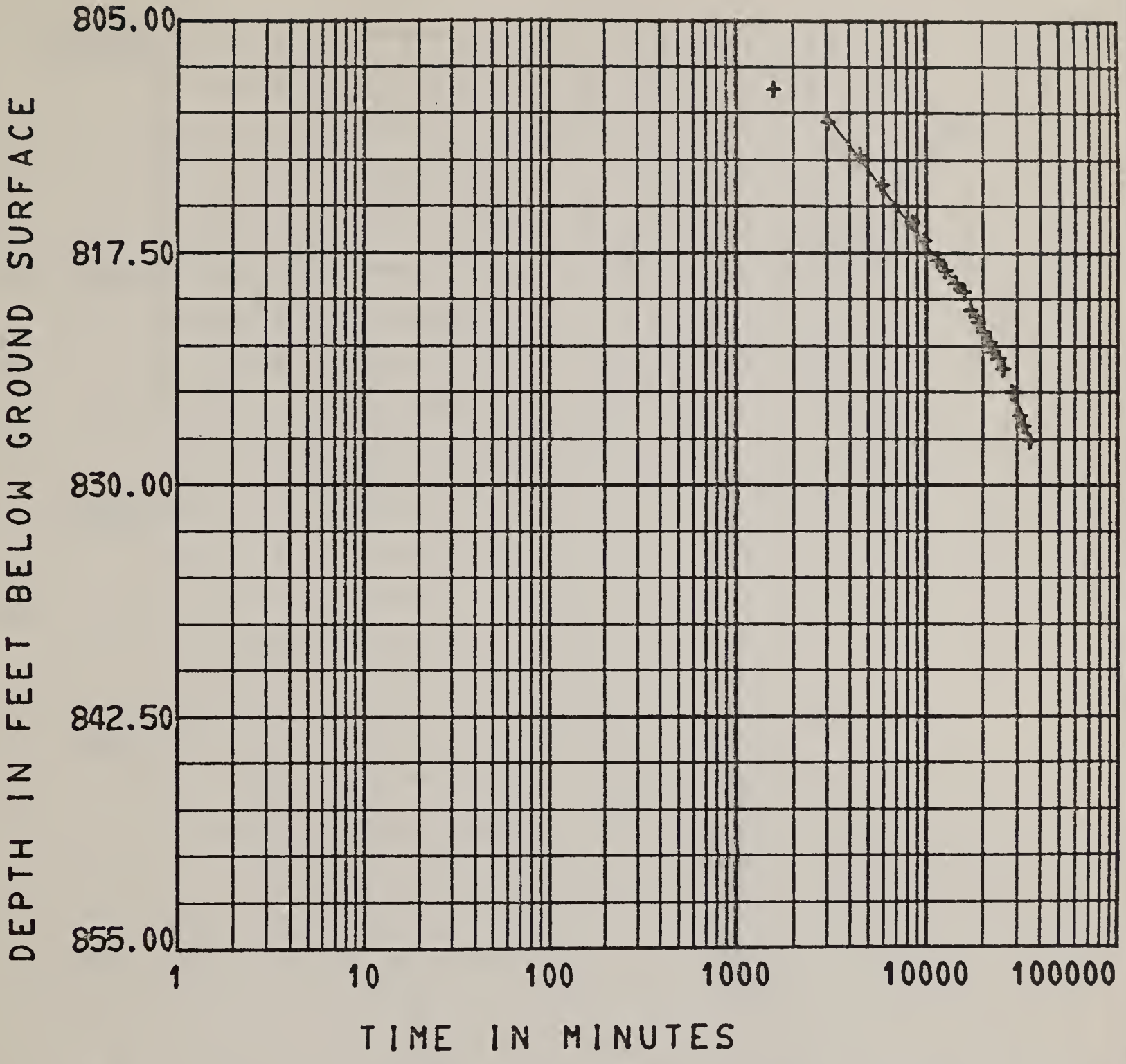
GSM-1 GS-17 LOWR DRAWDOWN



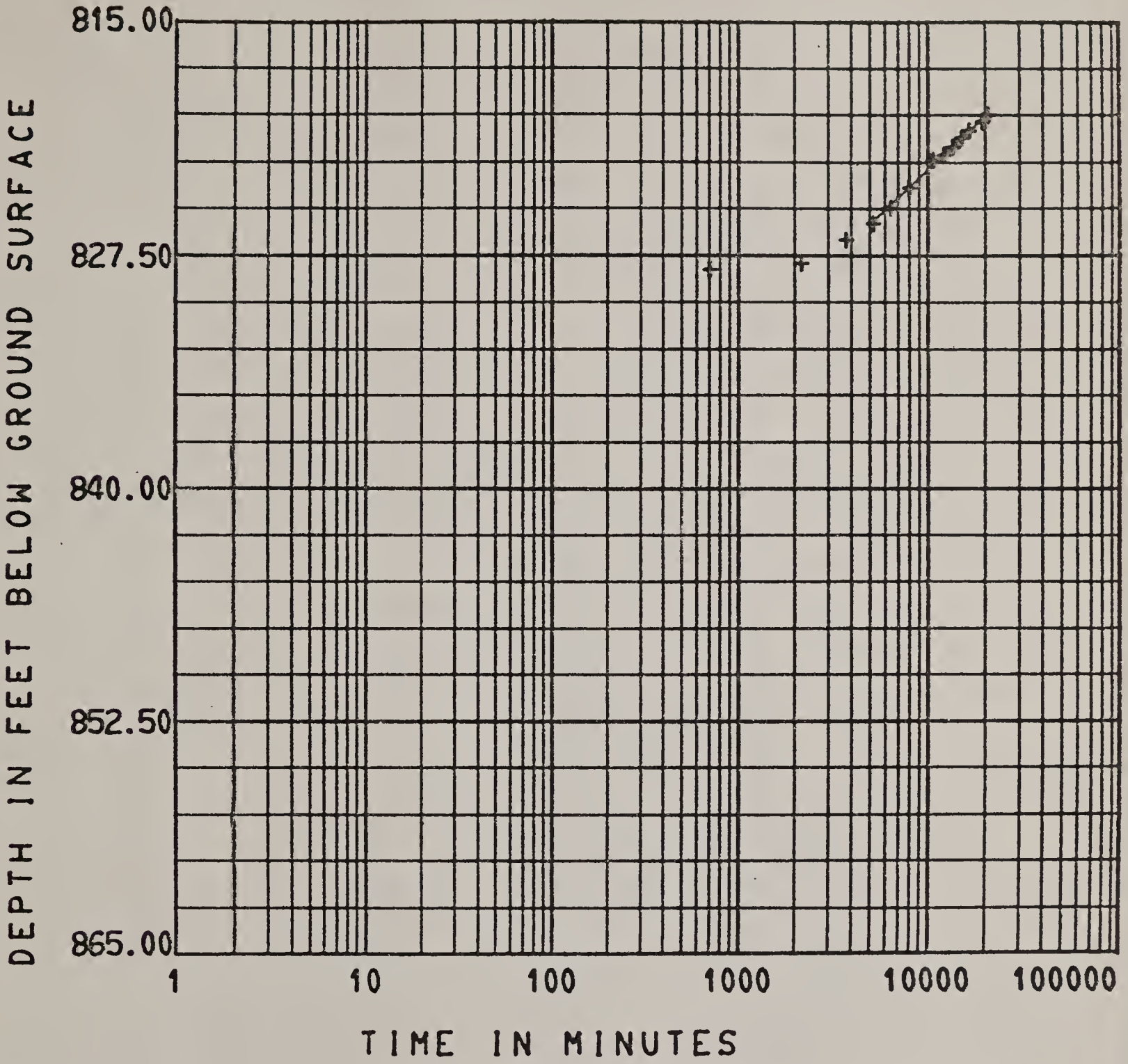
GSM-1 GS-17 LOWR RECOVERY



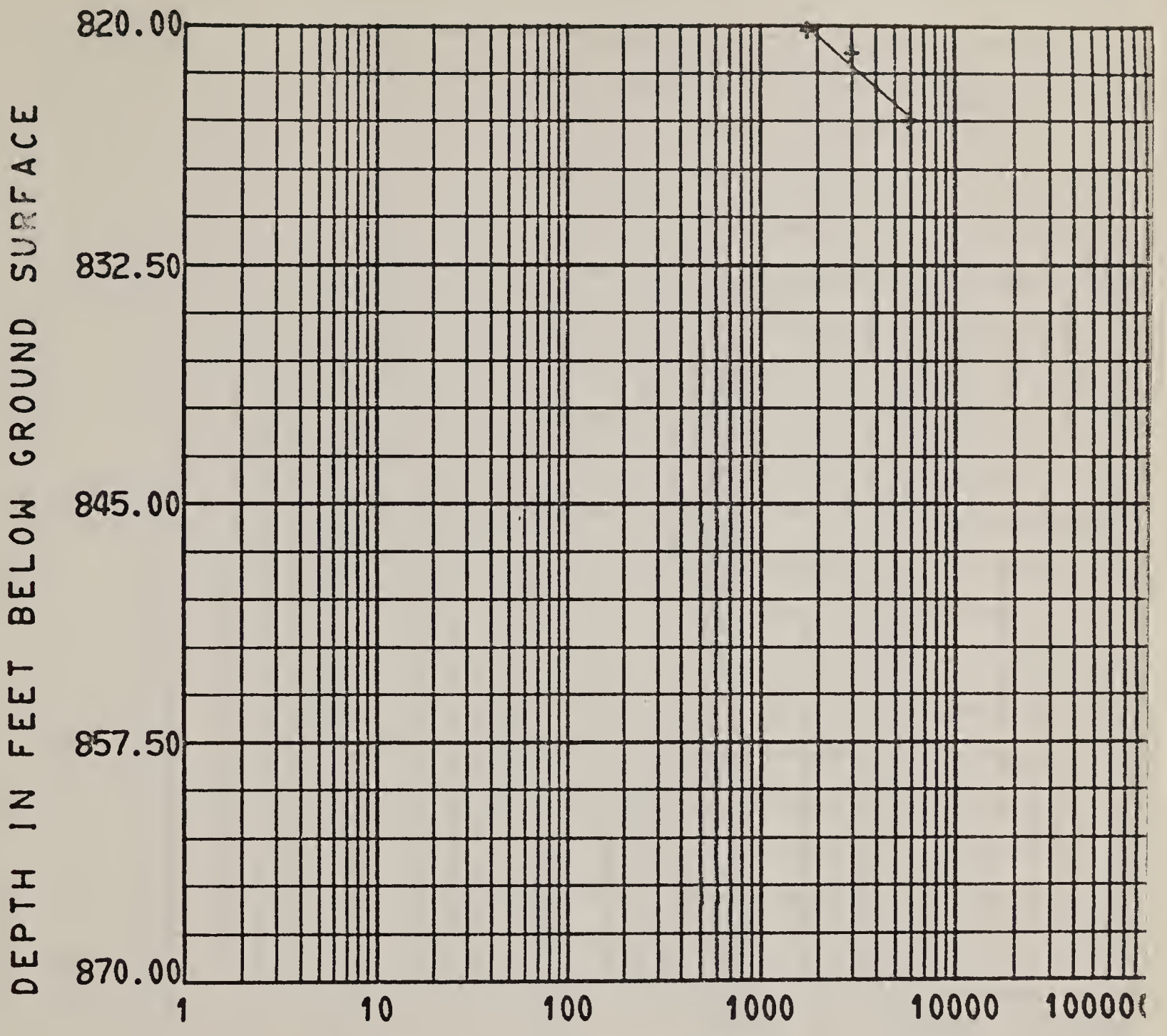
GSM-1 GS-18 LOWR RECOVERY



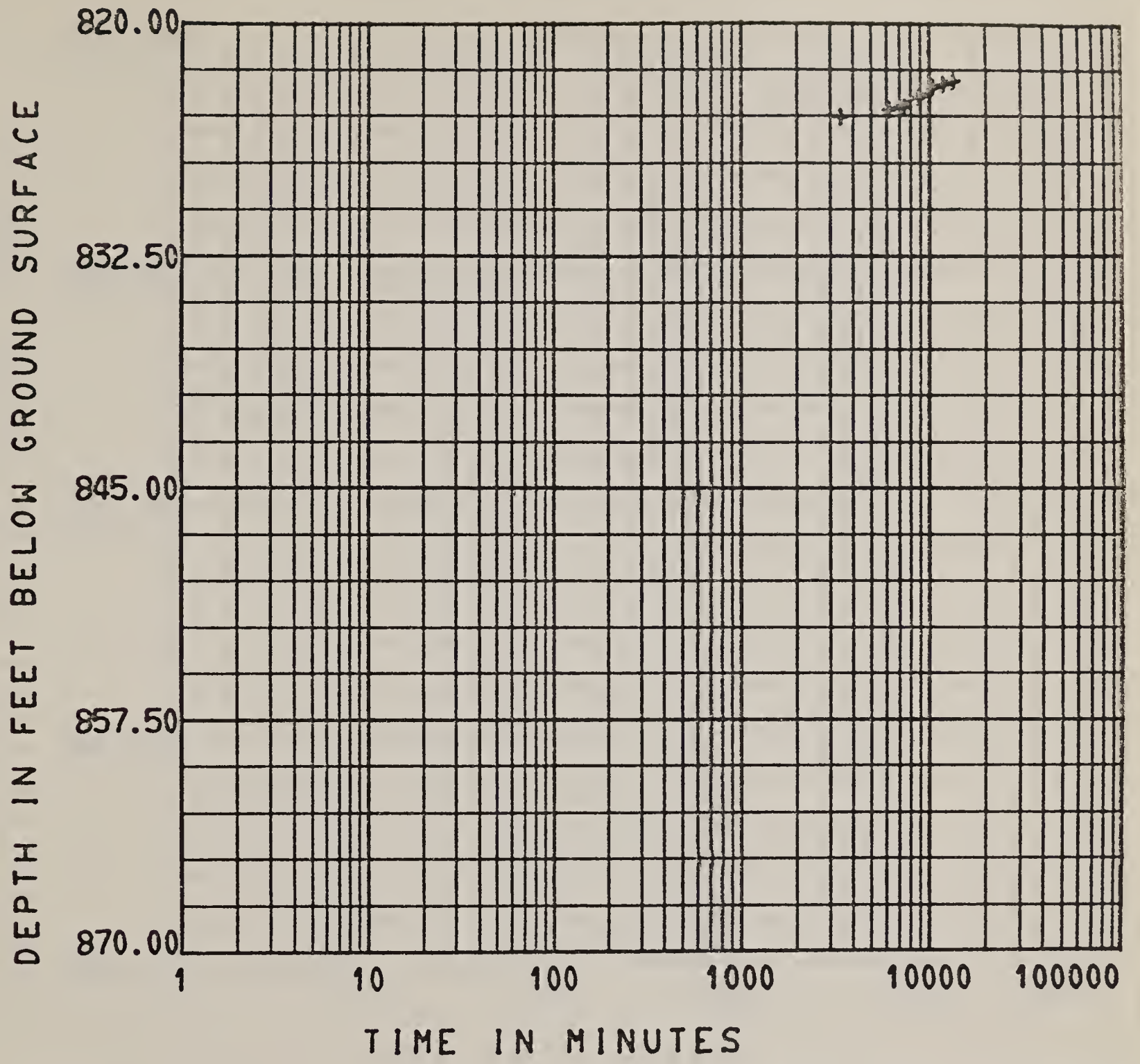
GSM-1 GS-19 LOWR DRAWDOWN



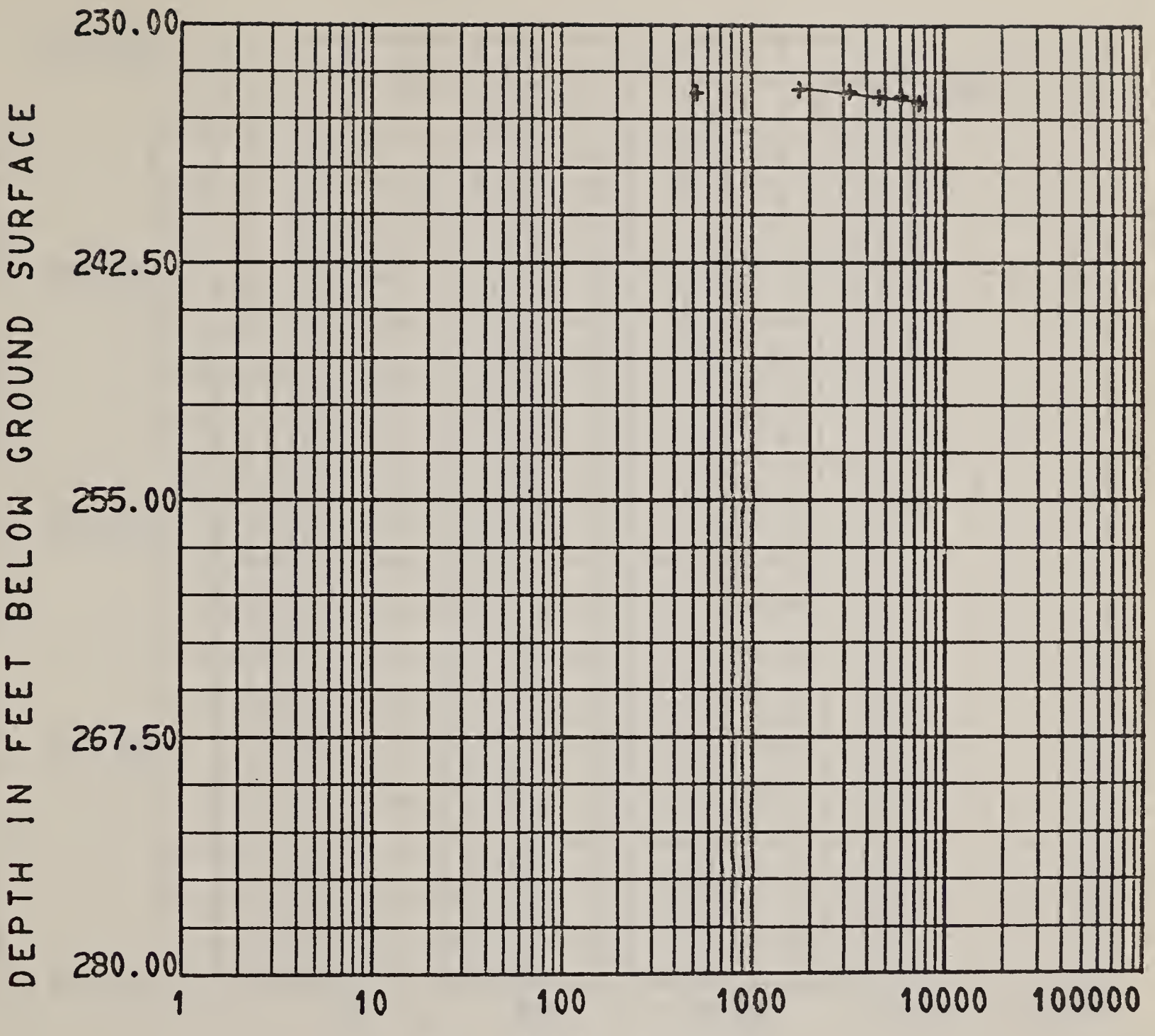
GSM-1 GS-19 LOWR RECOVERY



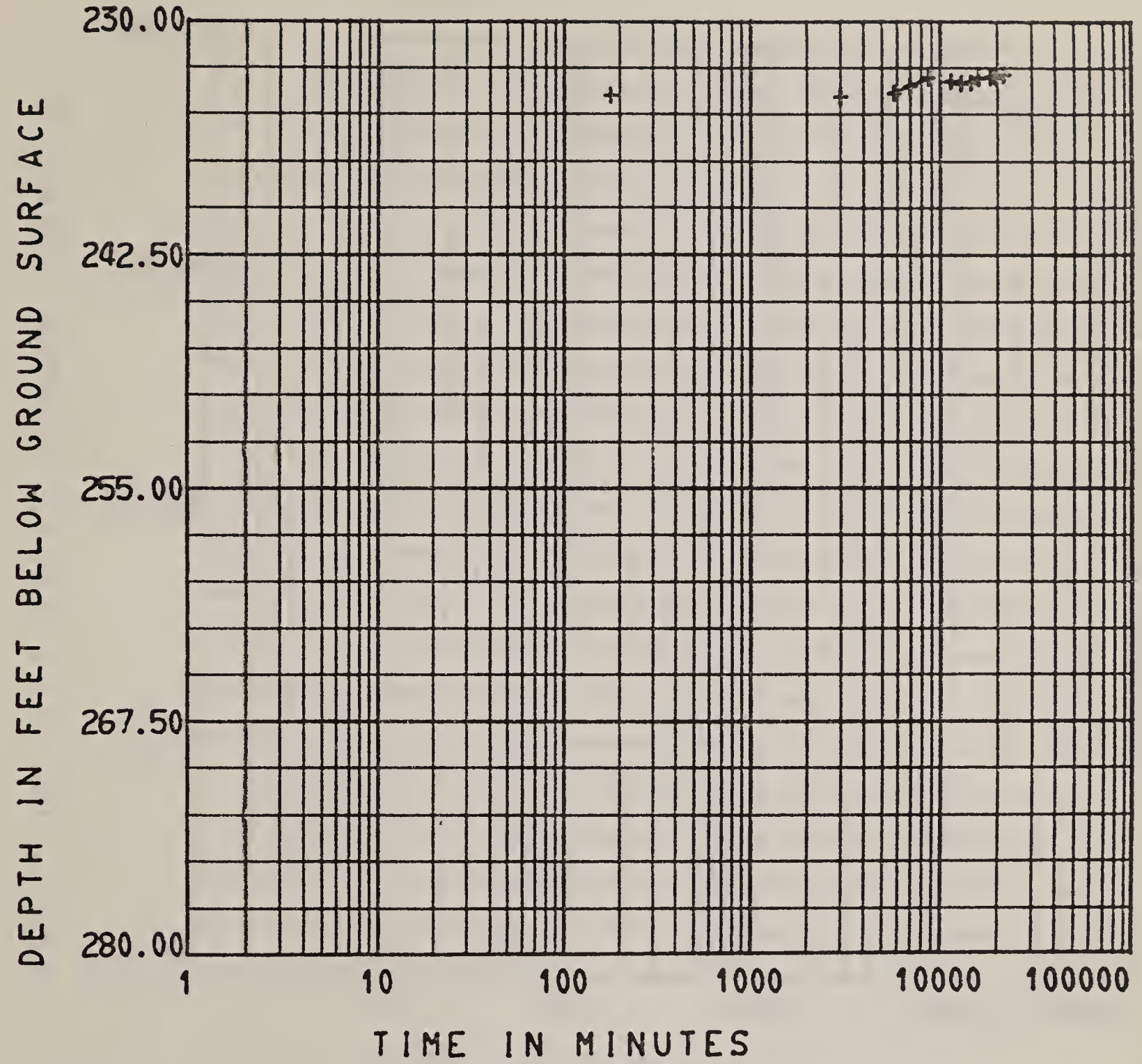
GSM-1 GS-19 LOWR DRAWDOWI



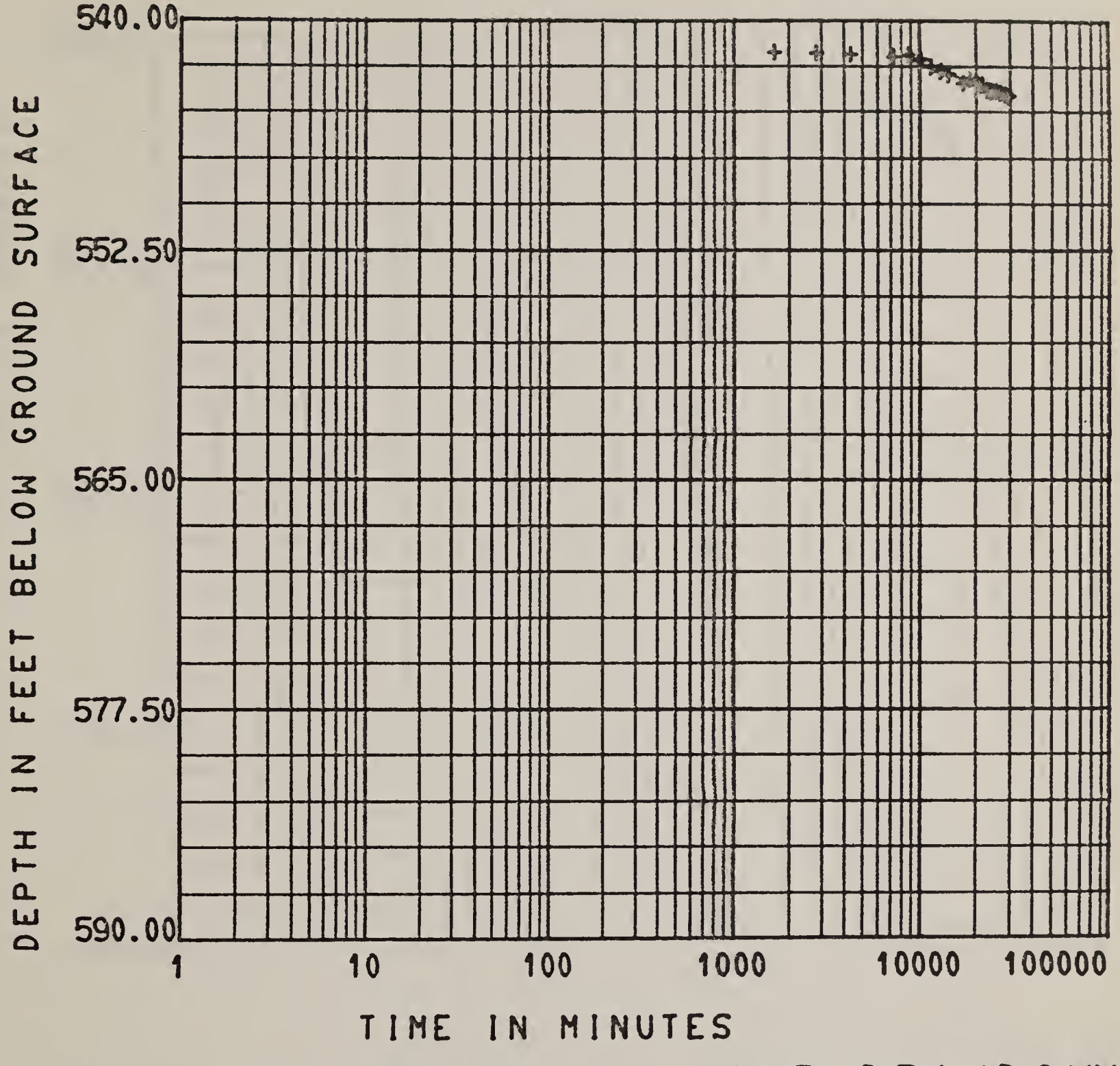
GSM-1 GS-19 LOWR RECOVERY



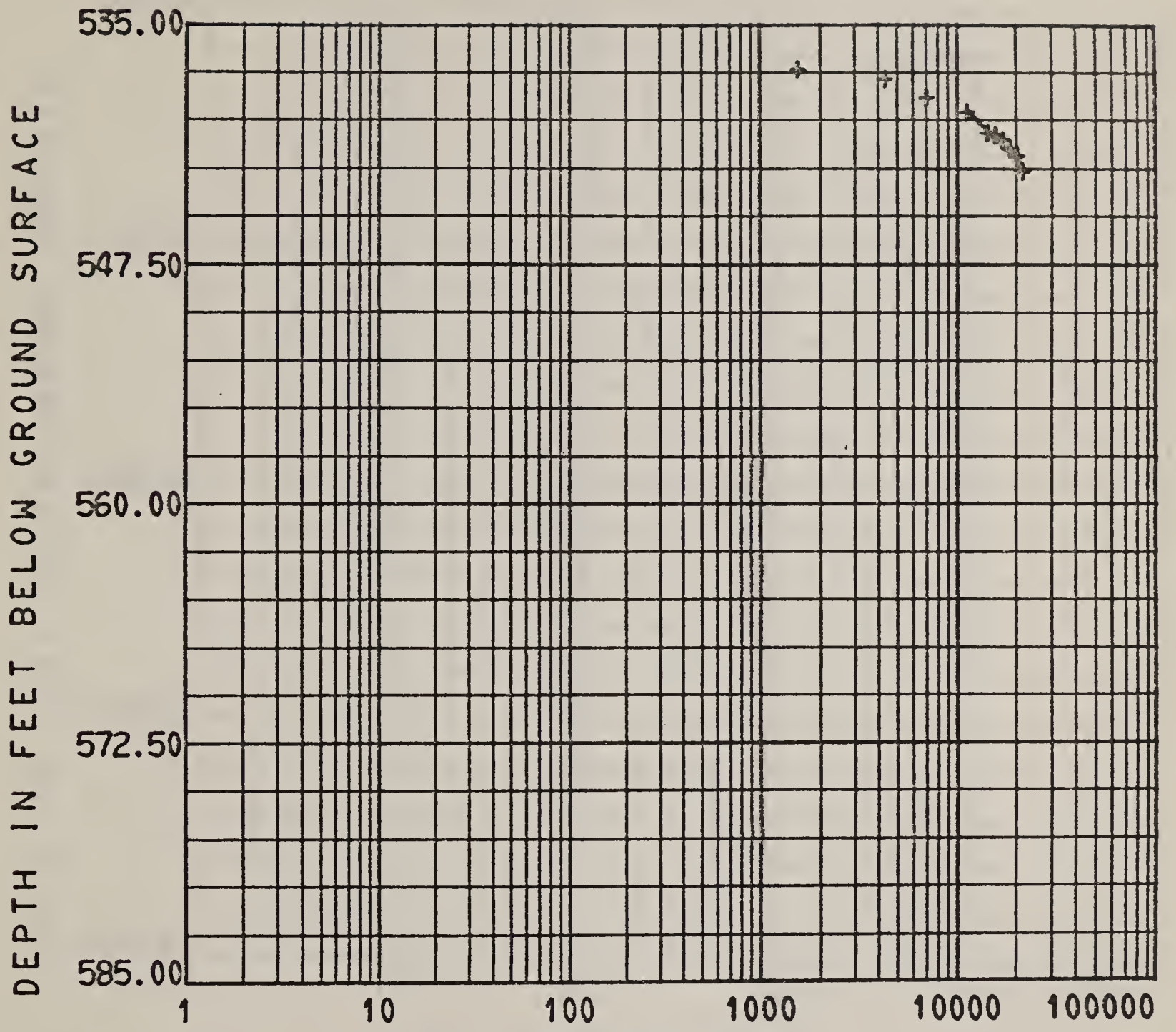
GSM-2 CE 705A UPPR DRAWDOWN



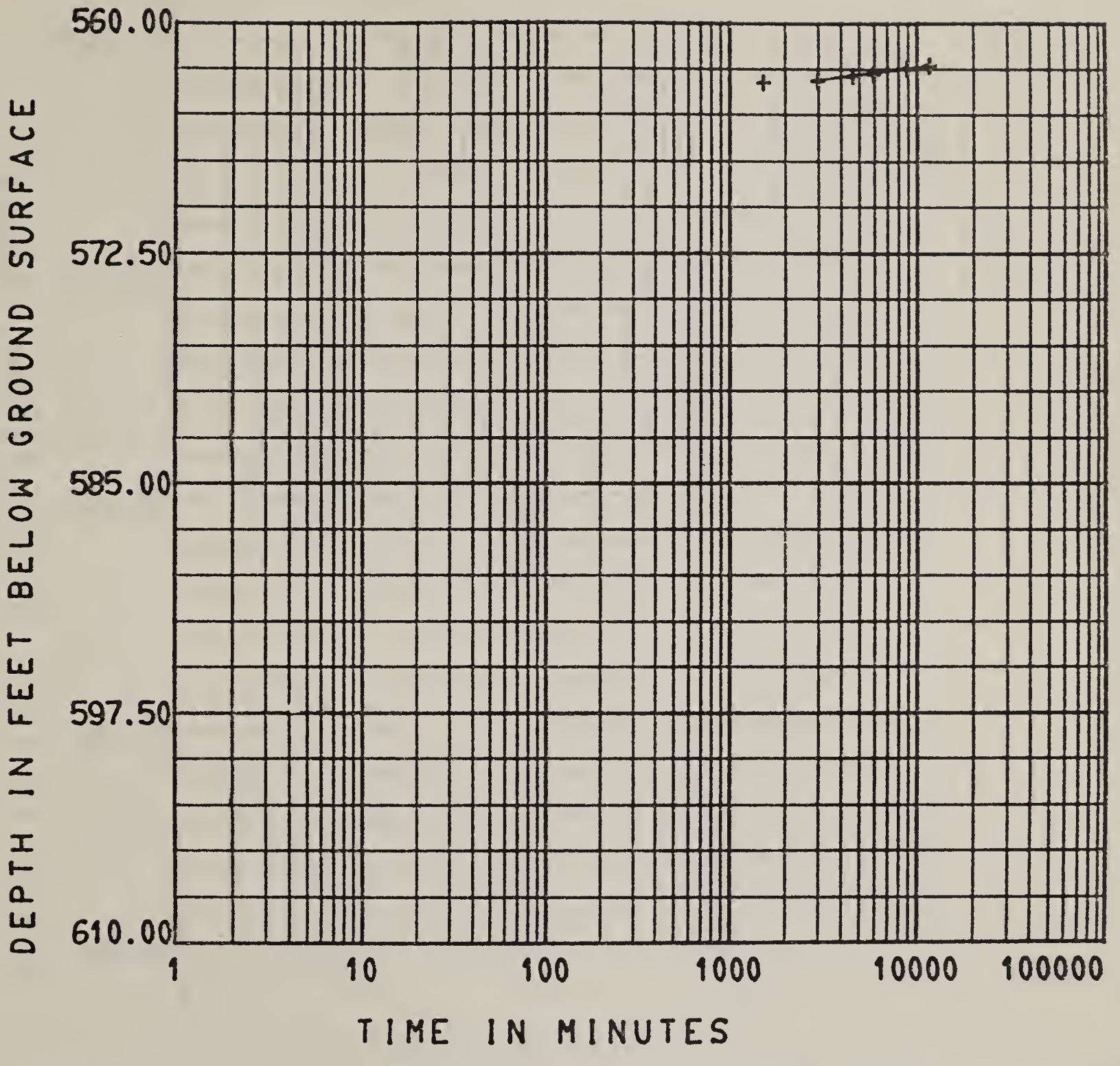
GSM-2 CE 705A UPPR RECOVERY



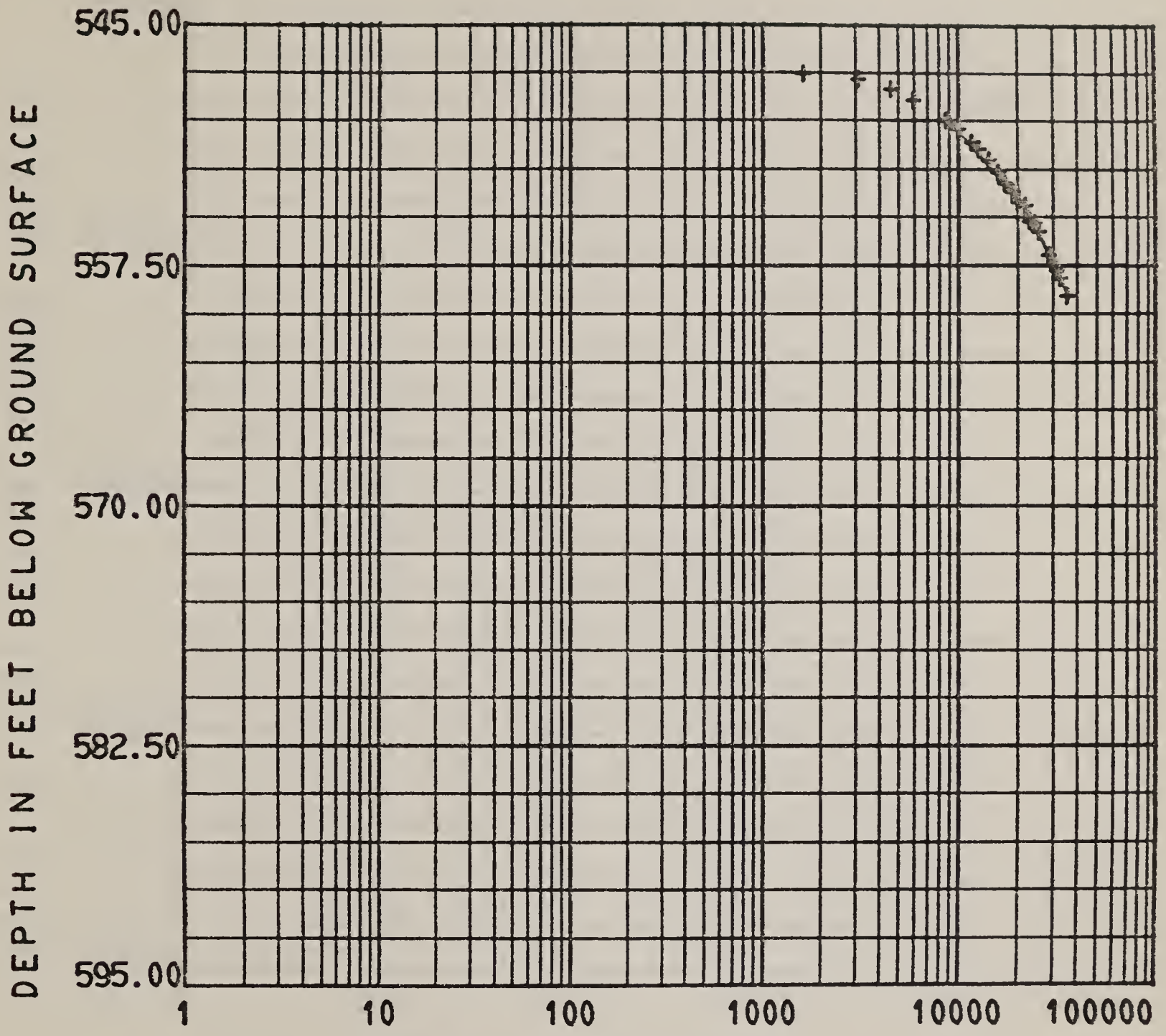
GSM-4 GS-16 LOWR DRAWDOWN



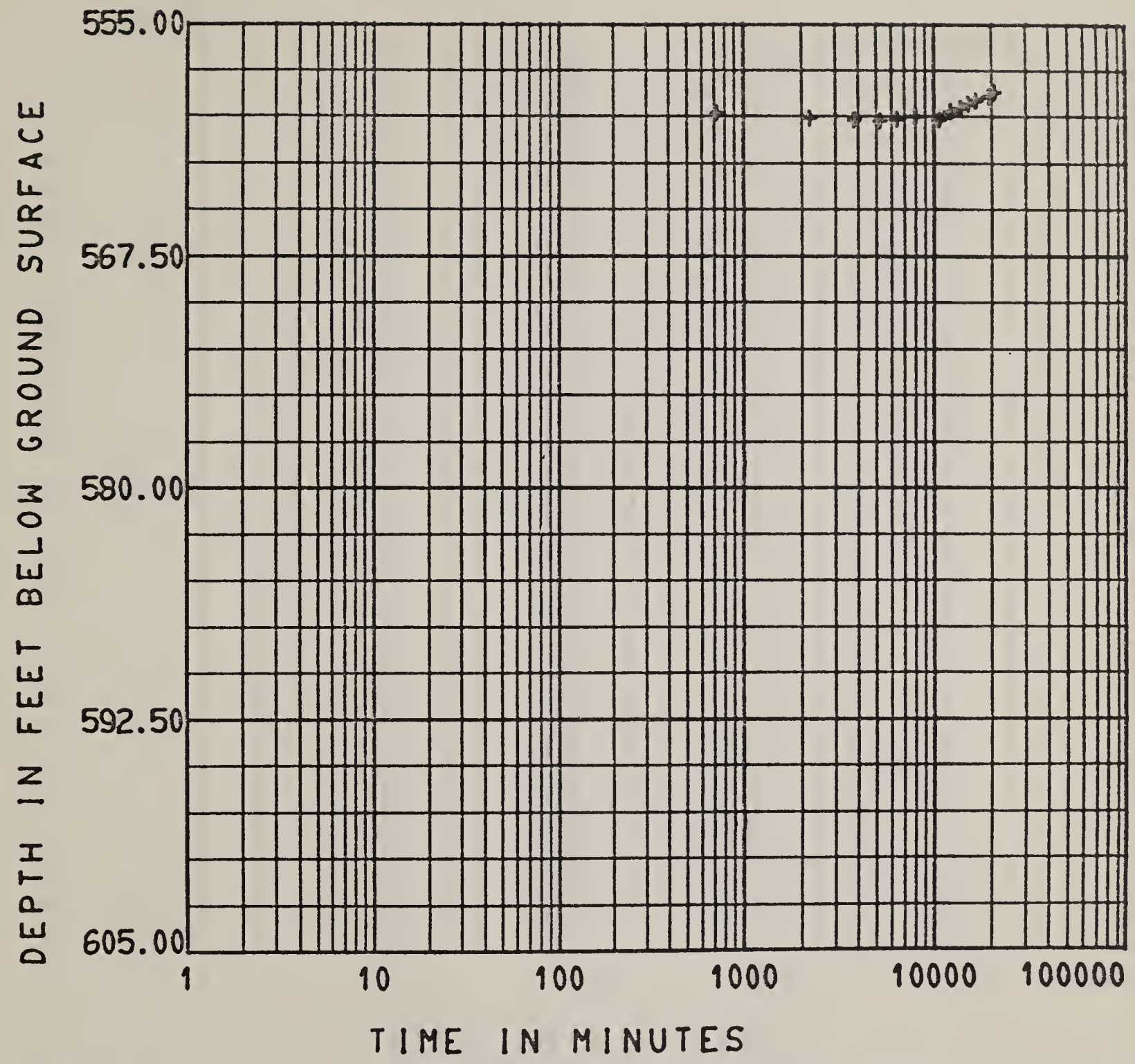
GSM-4 GS-17 LOWR DRAWDOWN



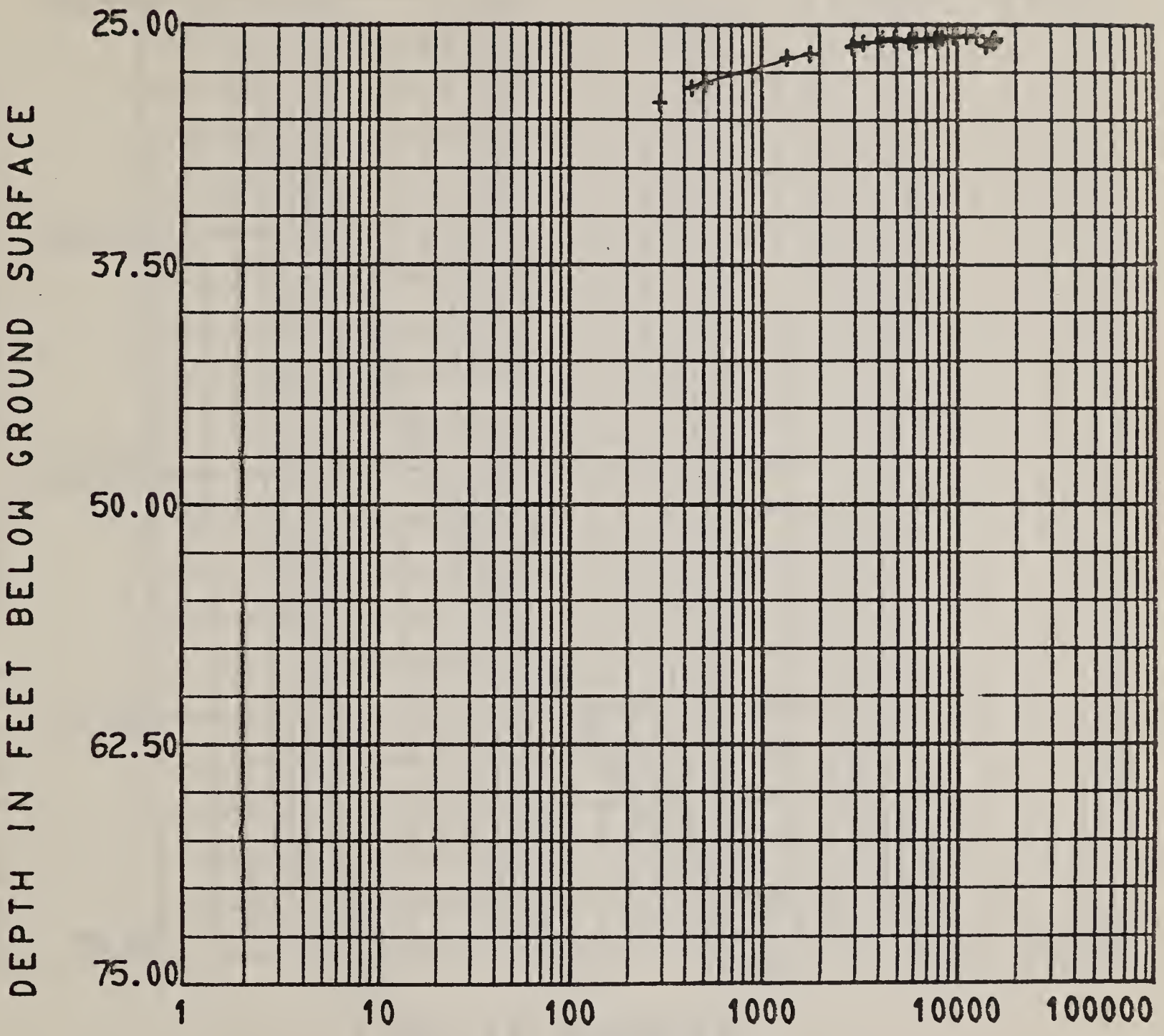
GSM-4 GS-18 LOWR RECOVERY



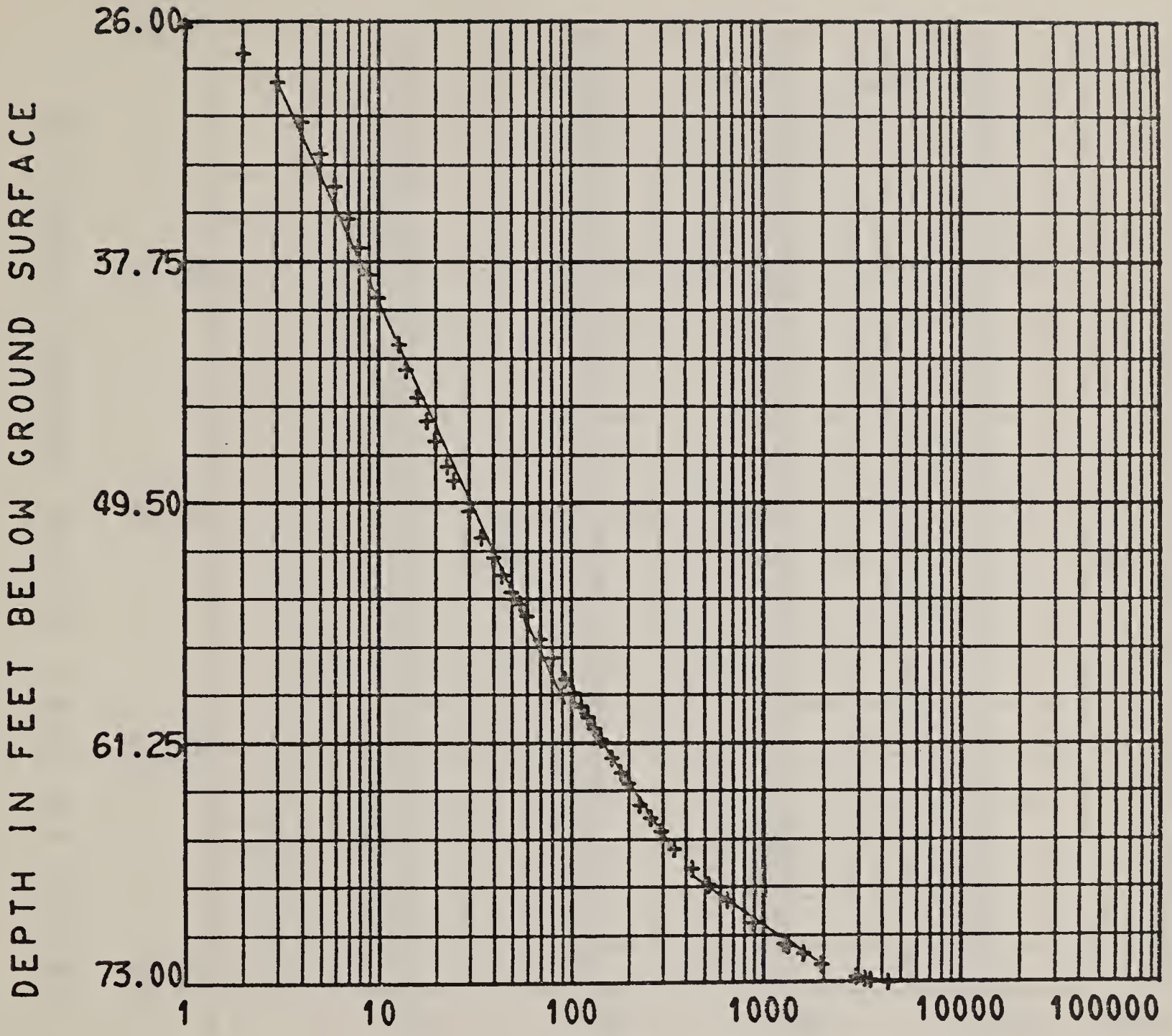
GSM-4 GS-19 LOWR DRAWDOWN



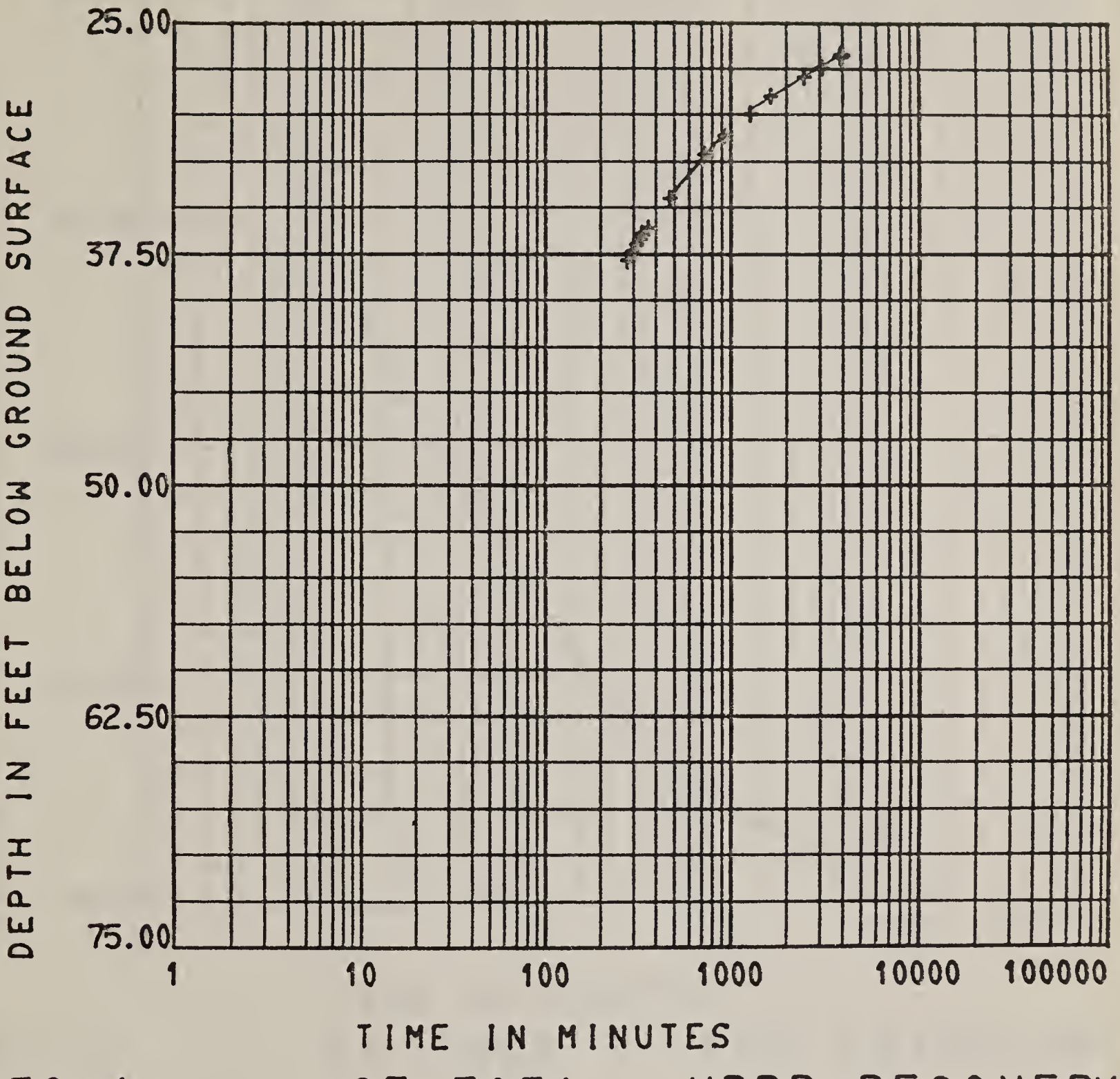
GSM-4 GS-19 LOWR RECOVERY



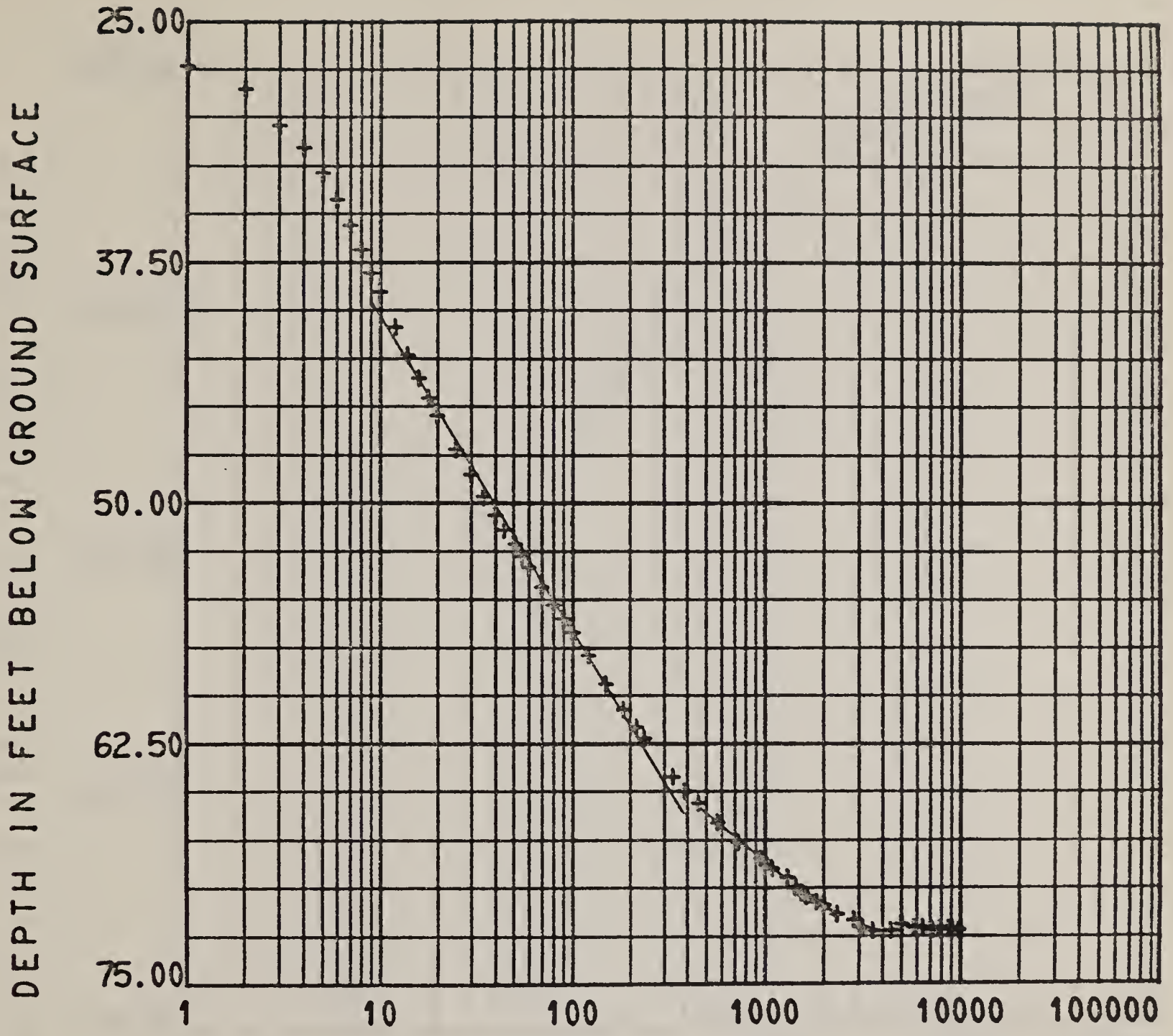
TO-1 CE 705A UPPR RECOVERY



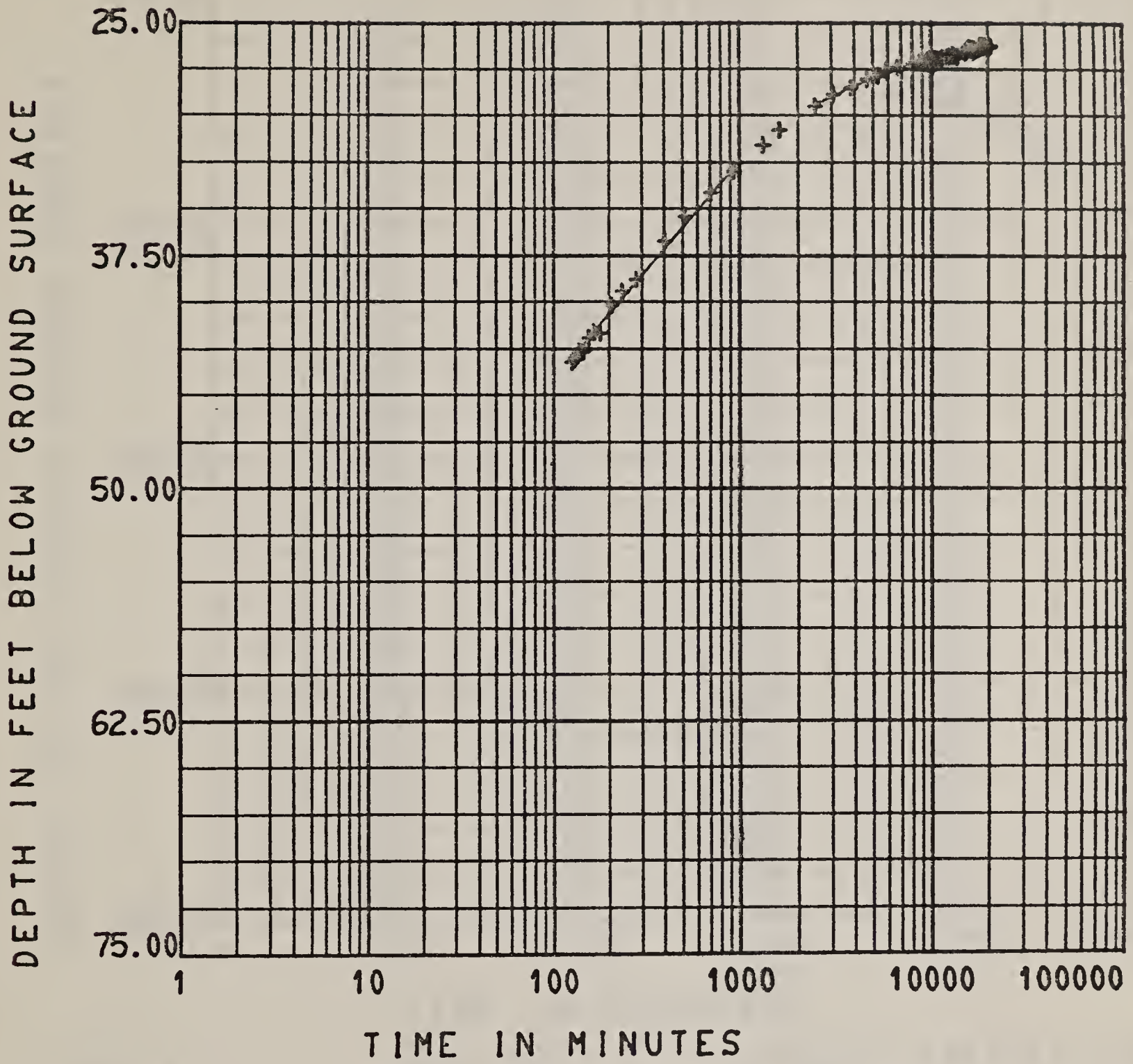
TO-1 CE 705A UPPR DRAWDOWN



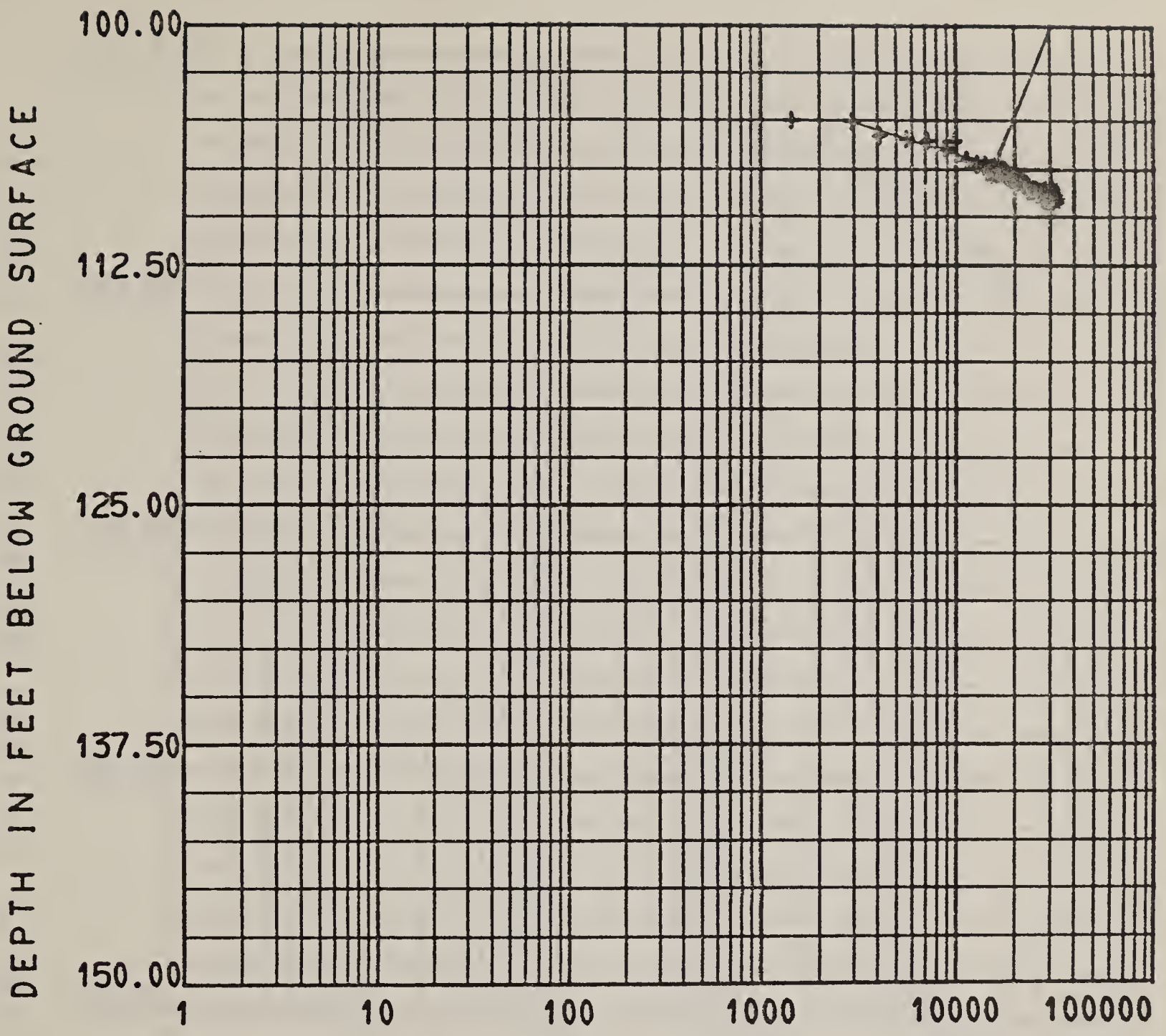
TO-1 CE 705A UPPR RECOVERY



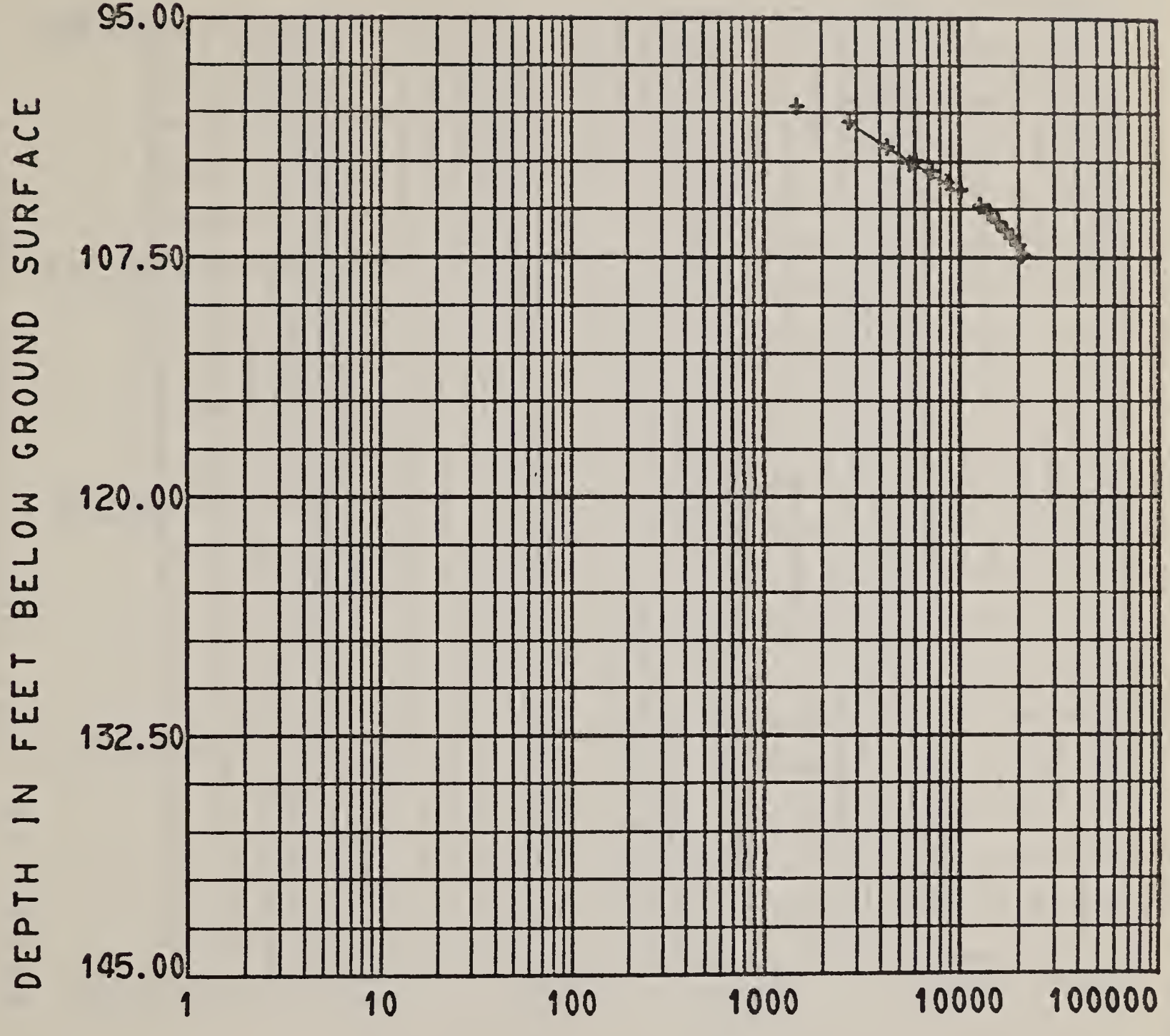
TO-1 CE 705A UPPR DRAWDOWN



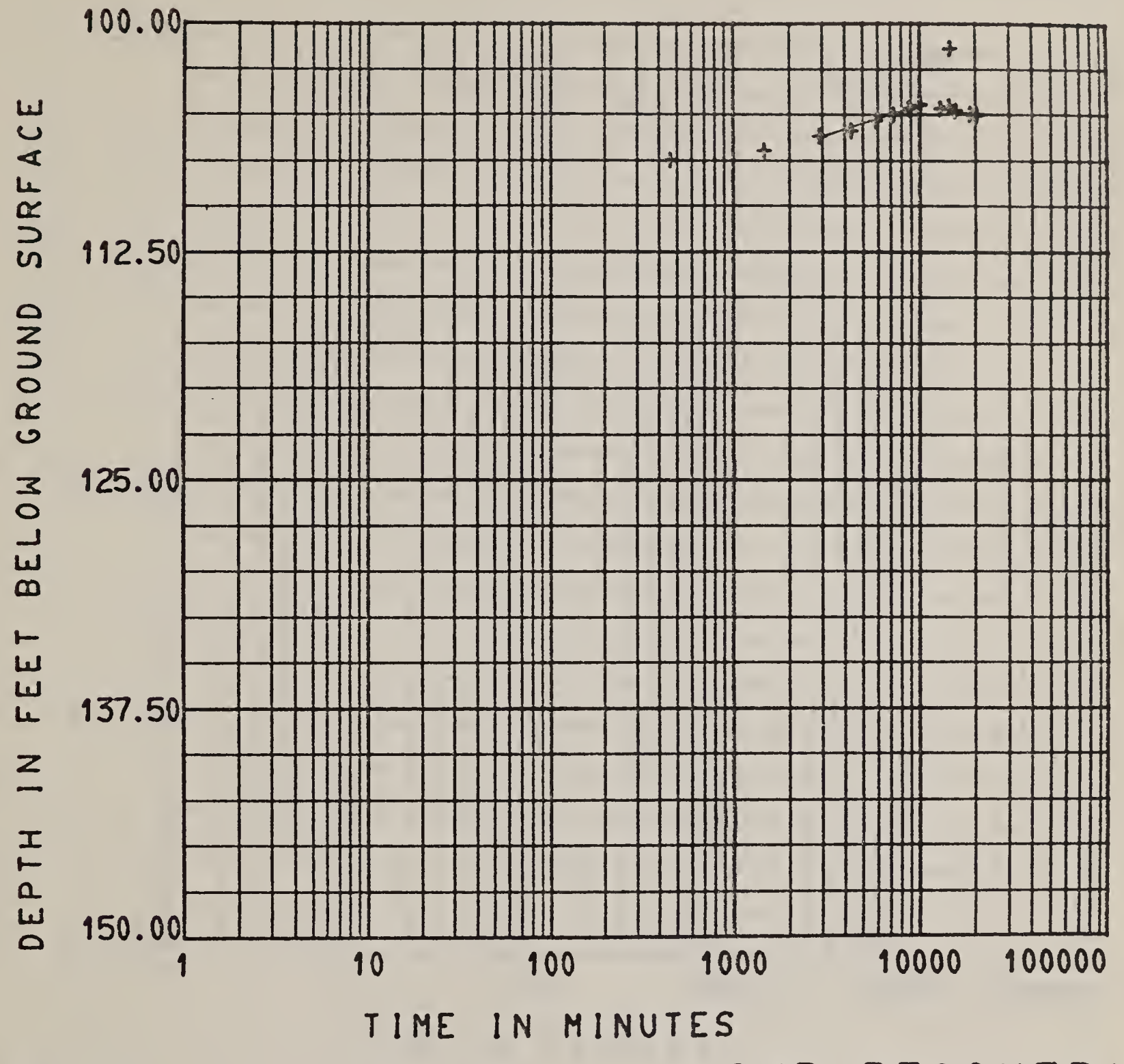
TO-1 CE 705A UPPR RECOVERY



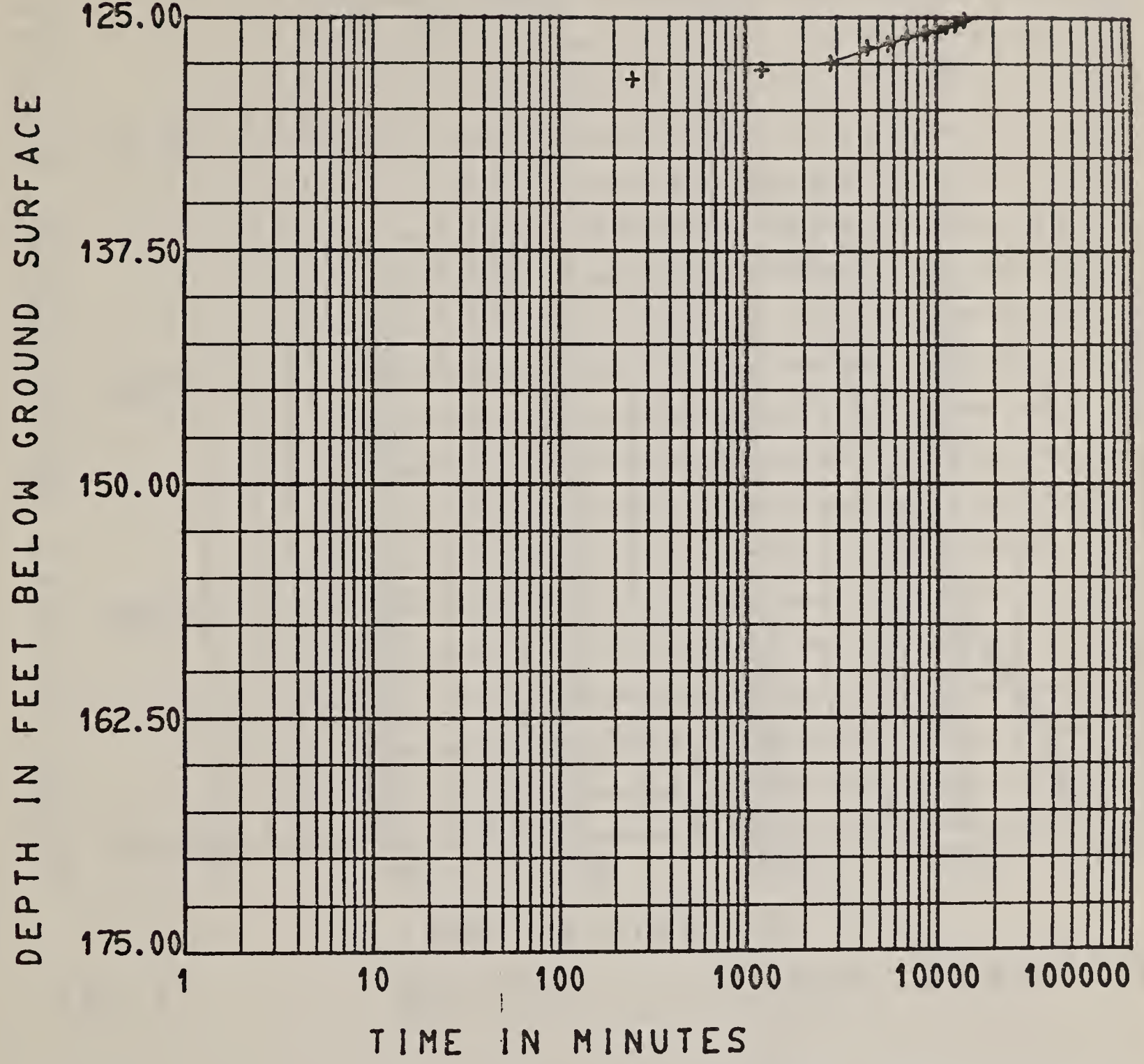
TO-1 GS-16 LOWR DRAWDOWN



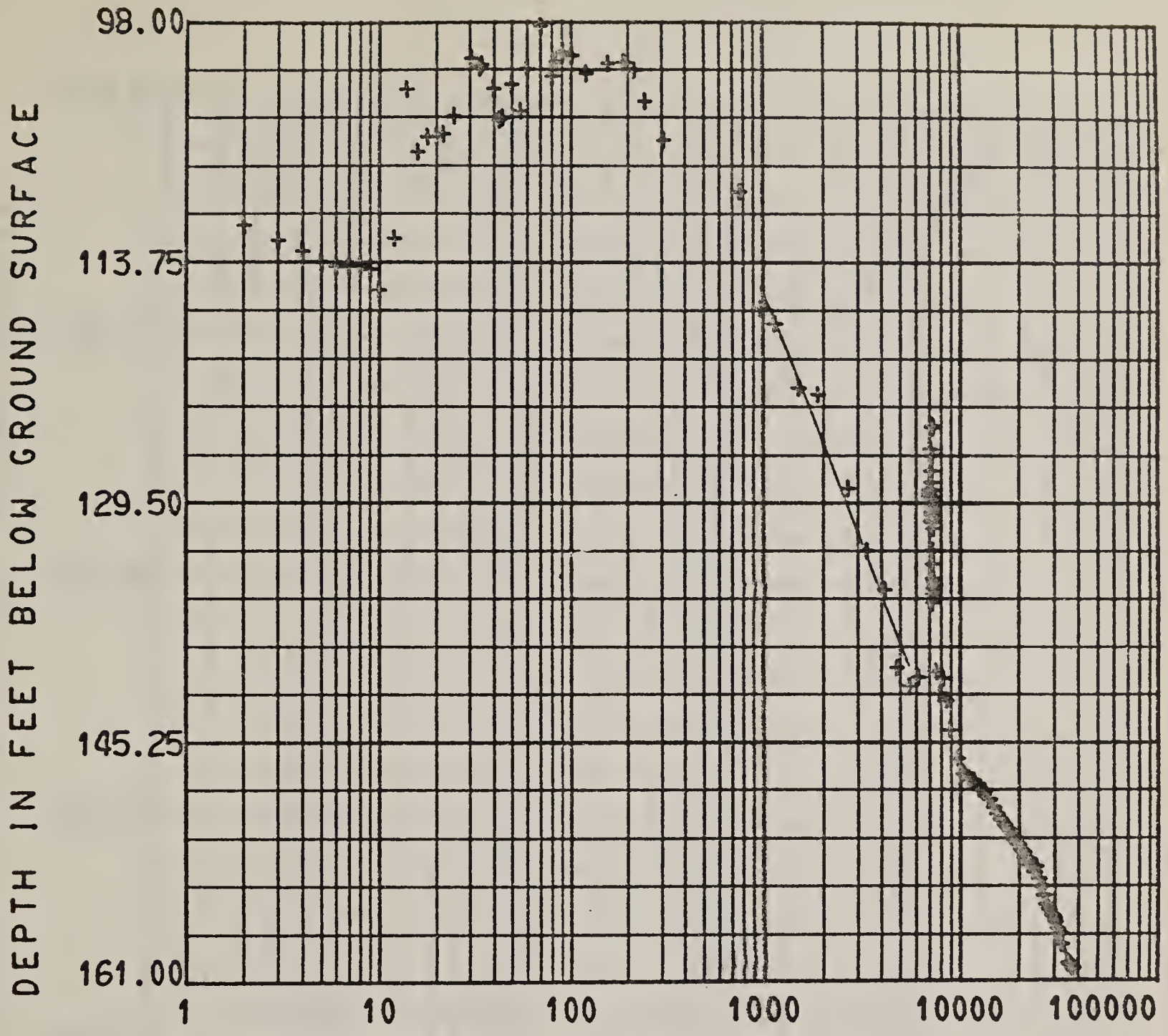
TO-1 GS-17 LOWR DRAWDOWN



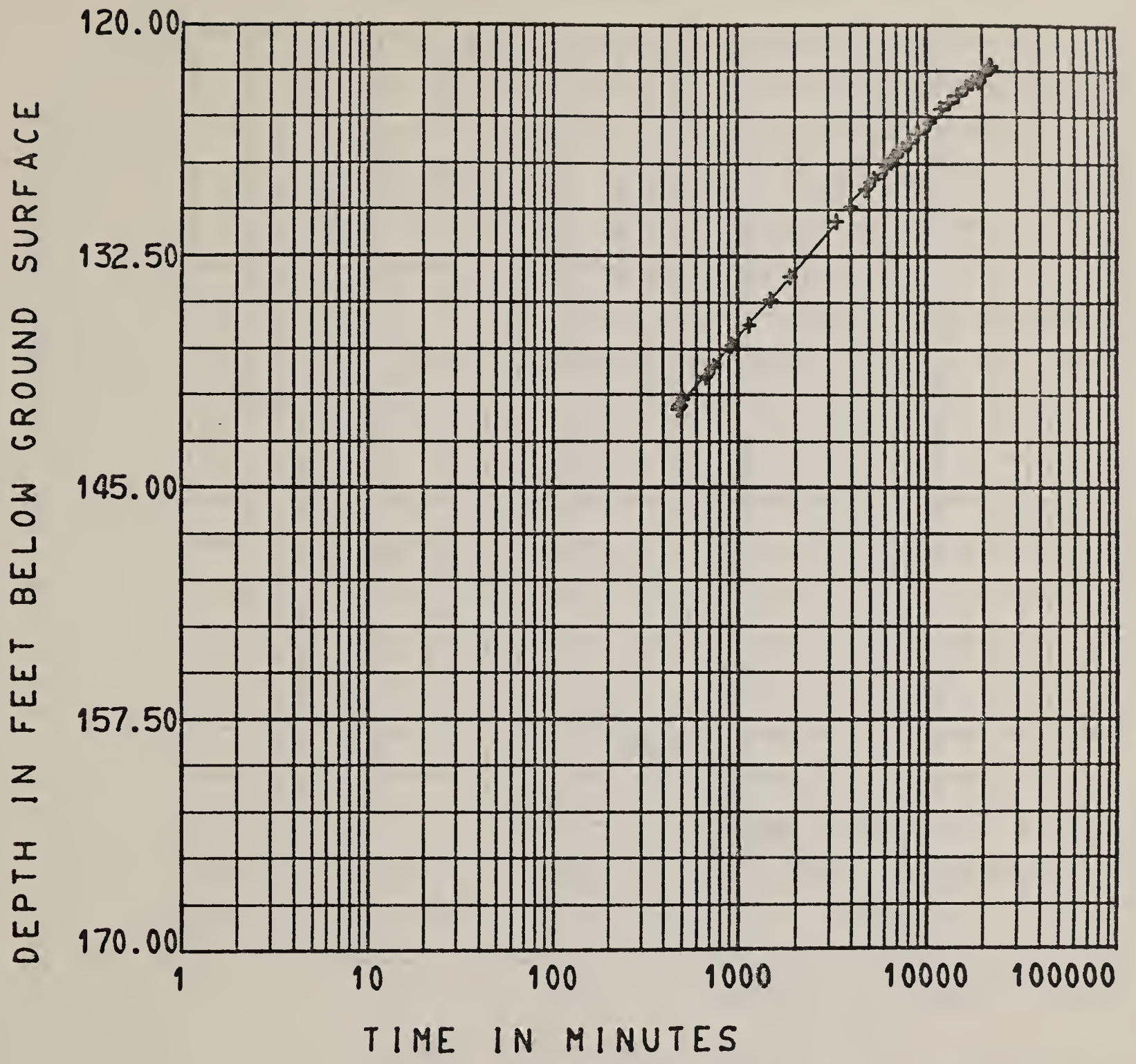
TO-1 GS-17 LOWR RECOVERY



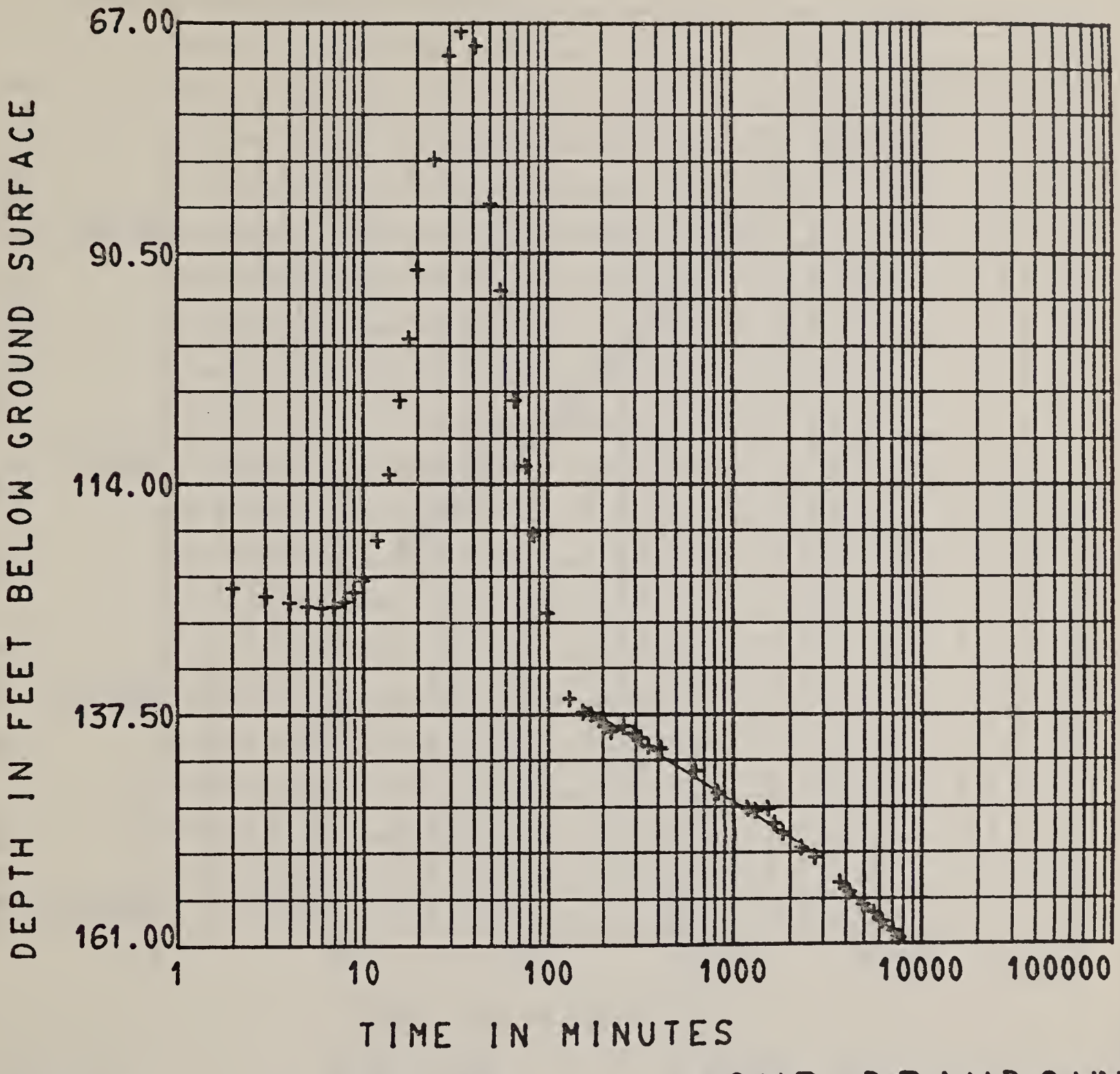
TO-1 GS-18 LOWR RECOVERY



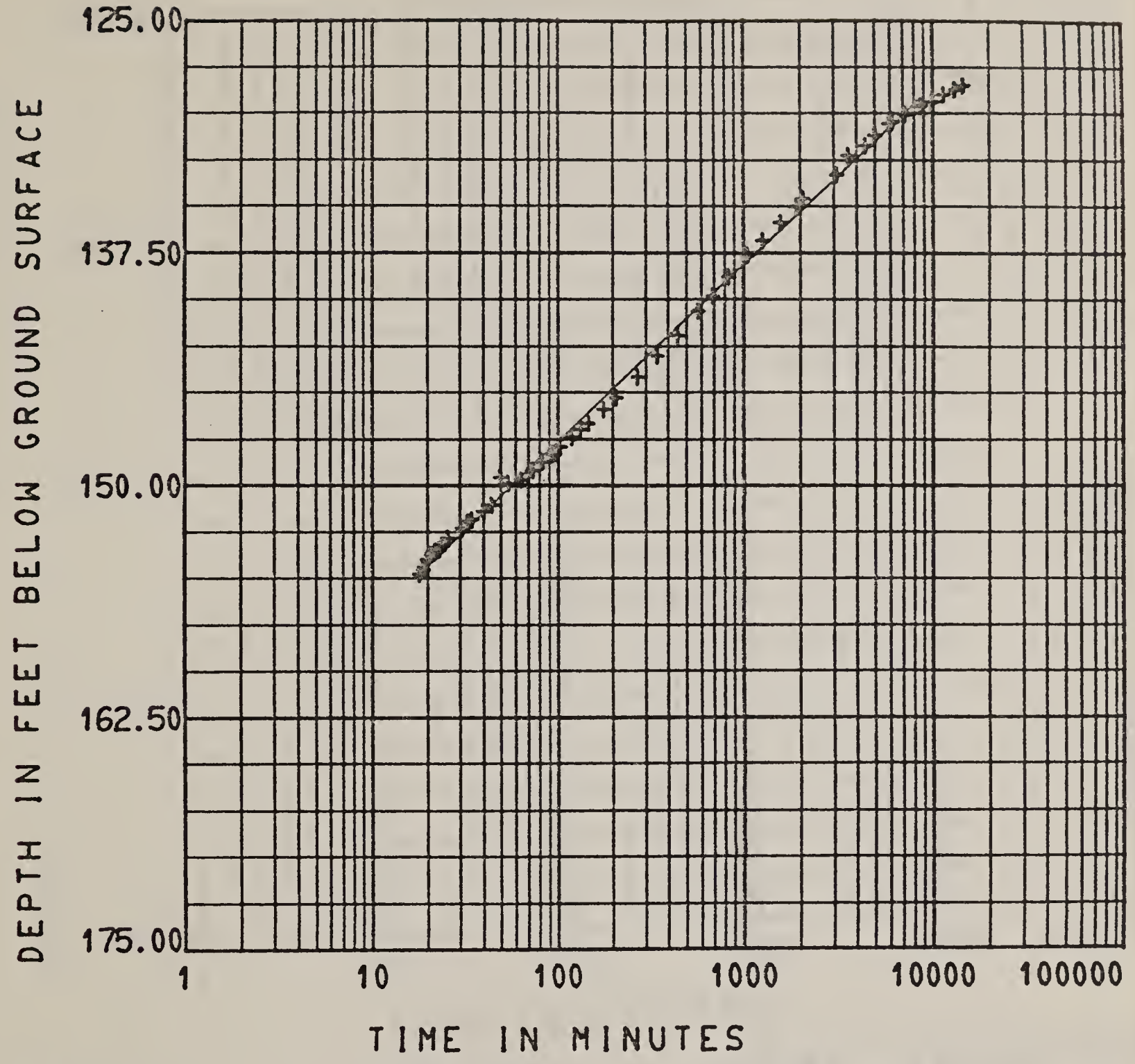
TO-1 GS-19 LOWR DRAWDOWN



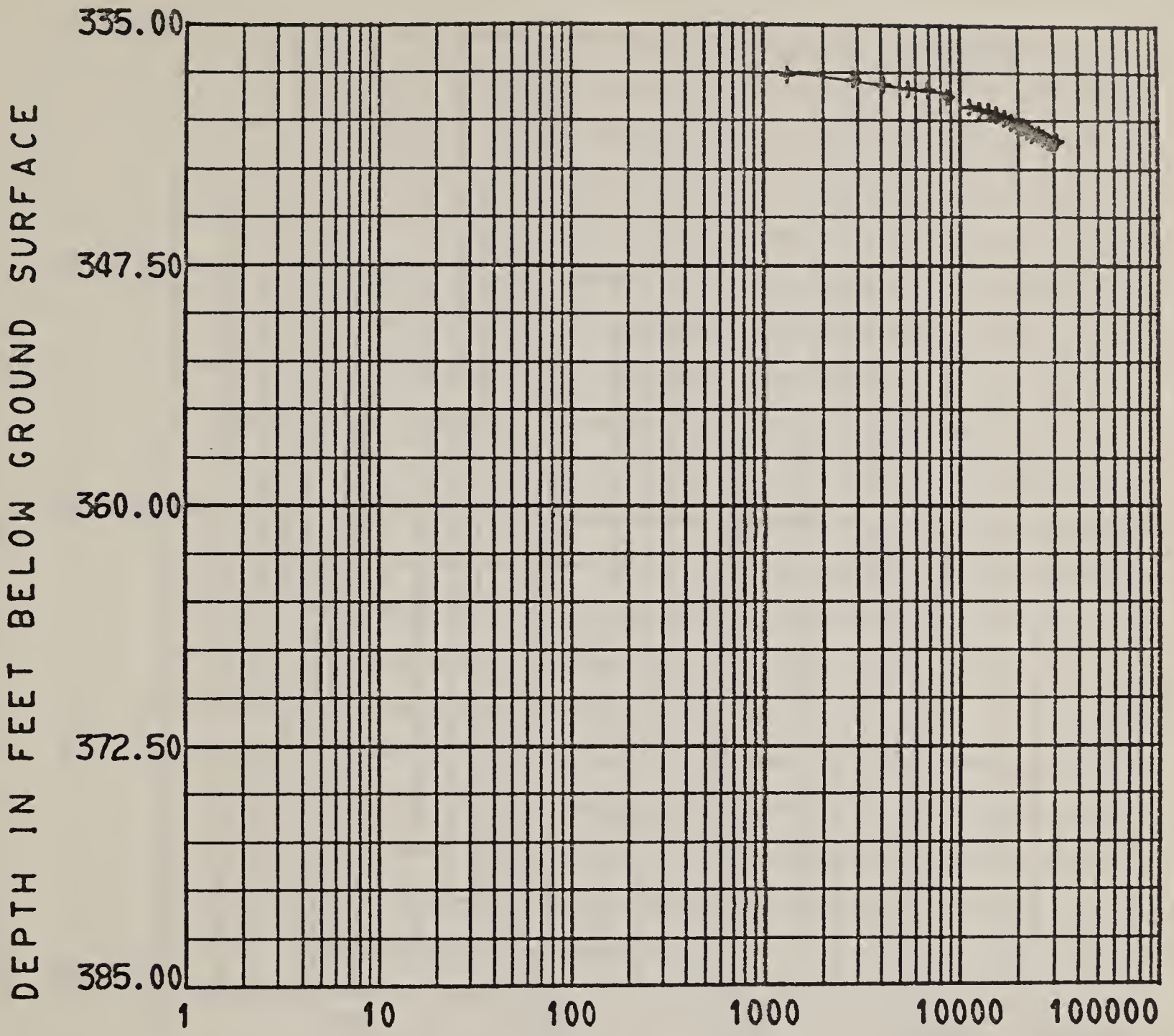
TO-1 GS-19 LOWR RECOVERY



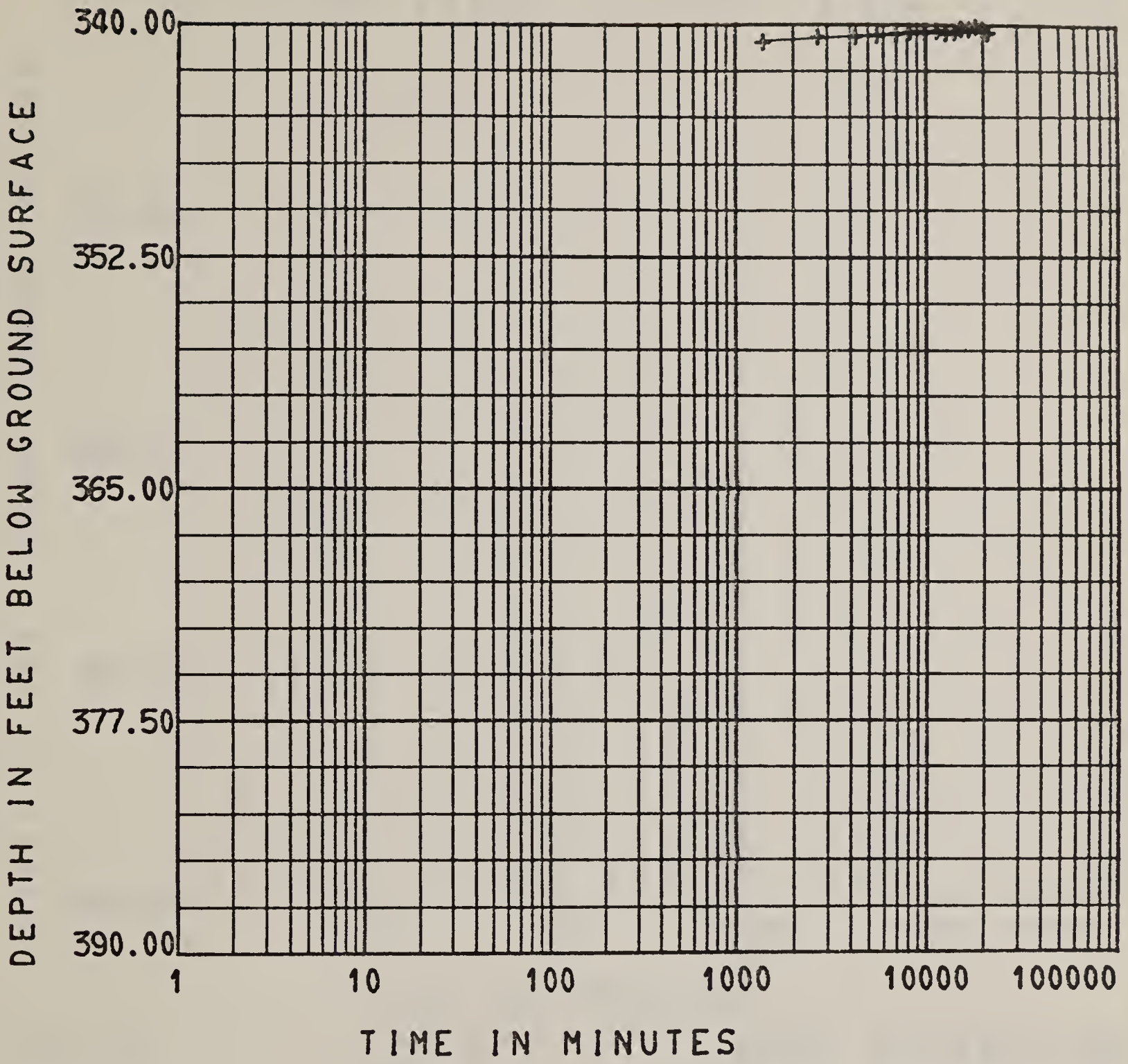
TO-1 GS-19 LOWR DRAWDOWN



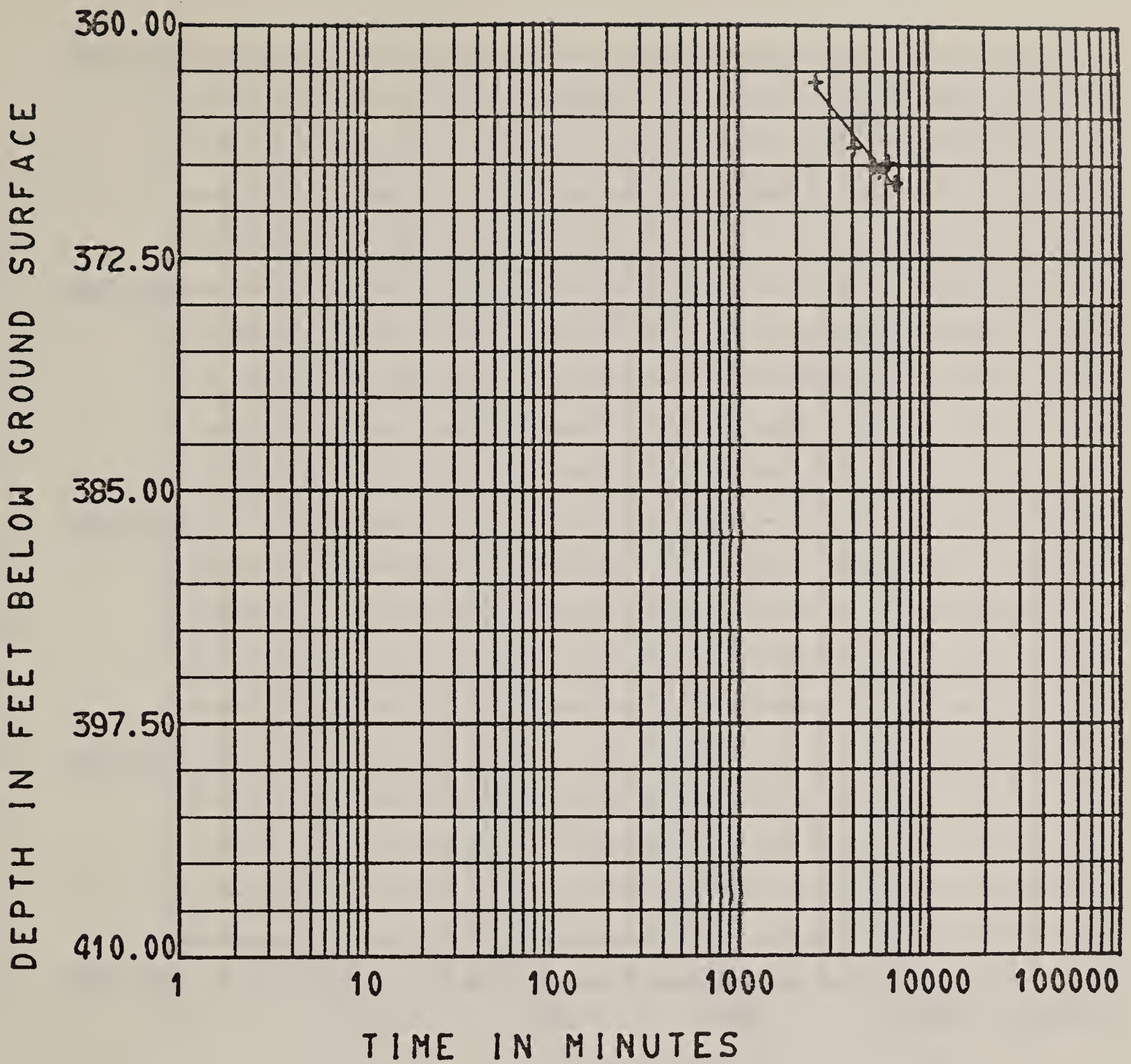
TO-1 GS-19 LOWR RECOVERY



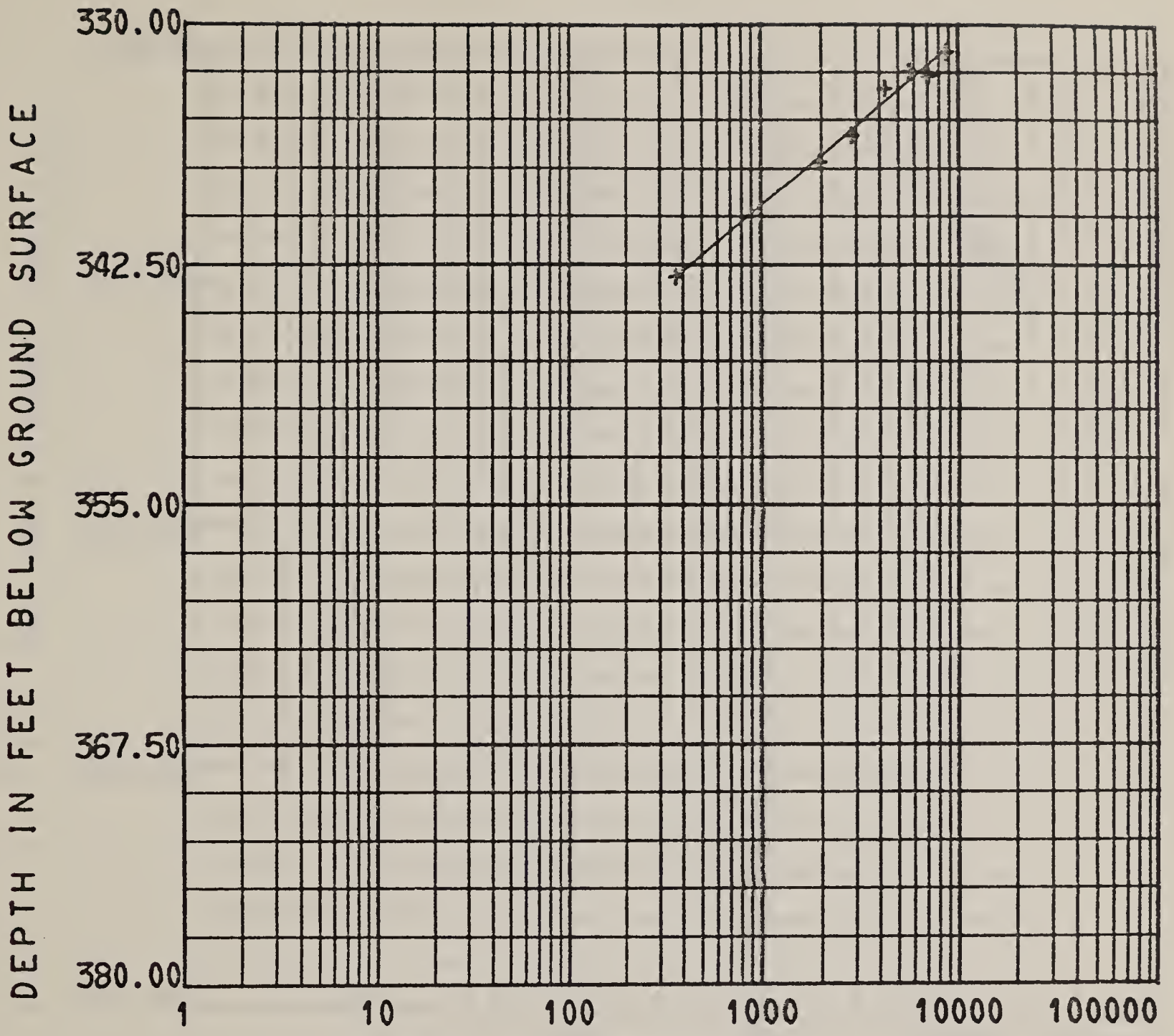
TO-2 GS-16 LOWR DRAWDOWN



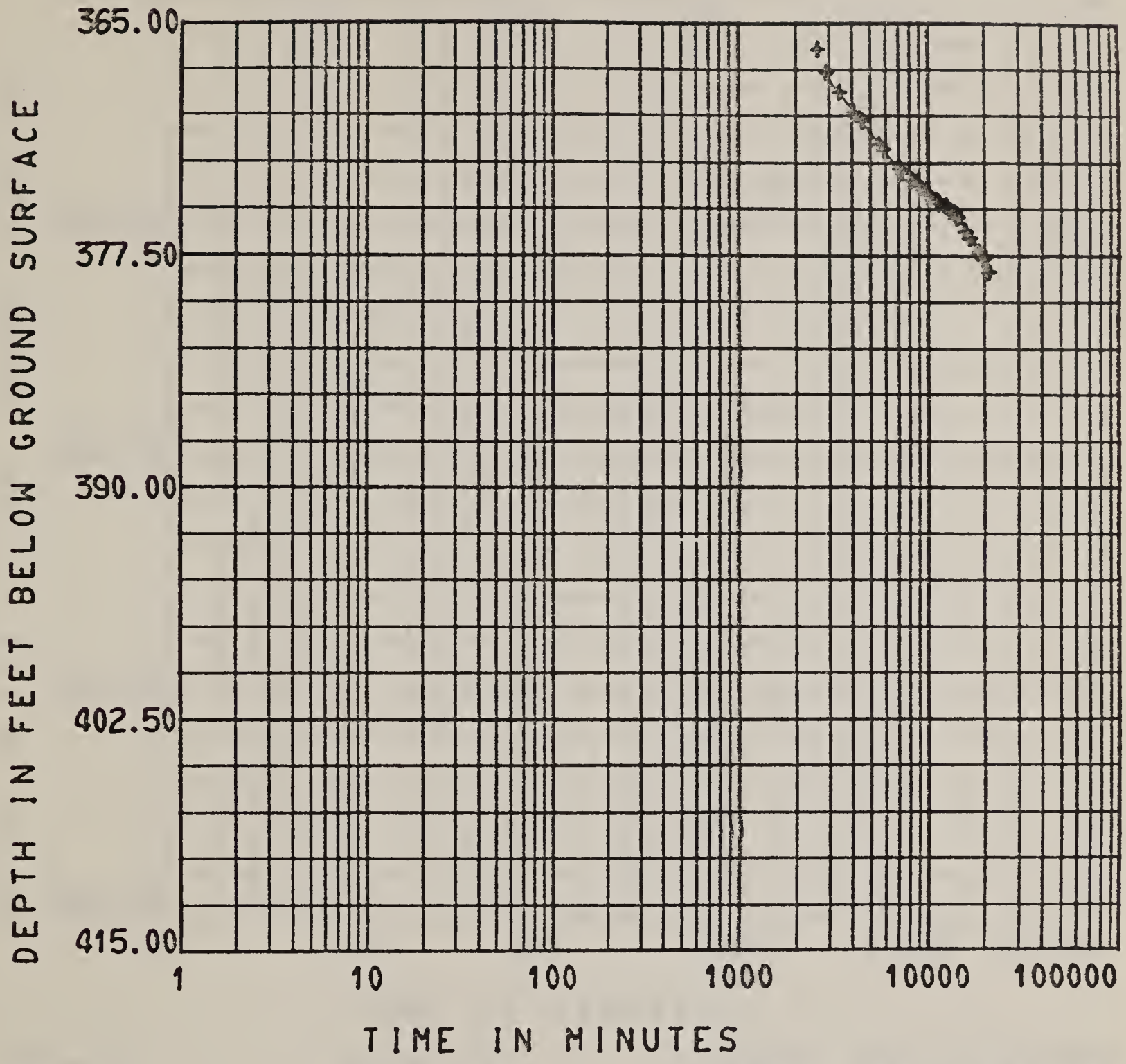
TO-2 GS-16 LOWR RECOVERY



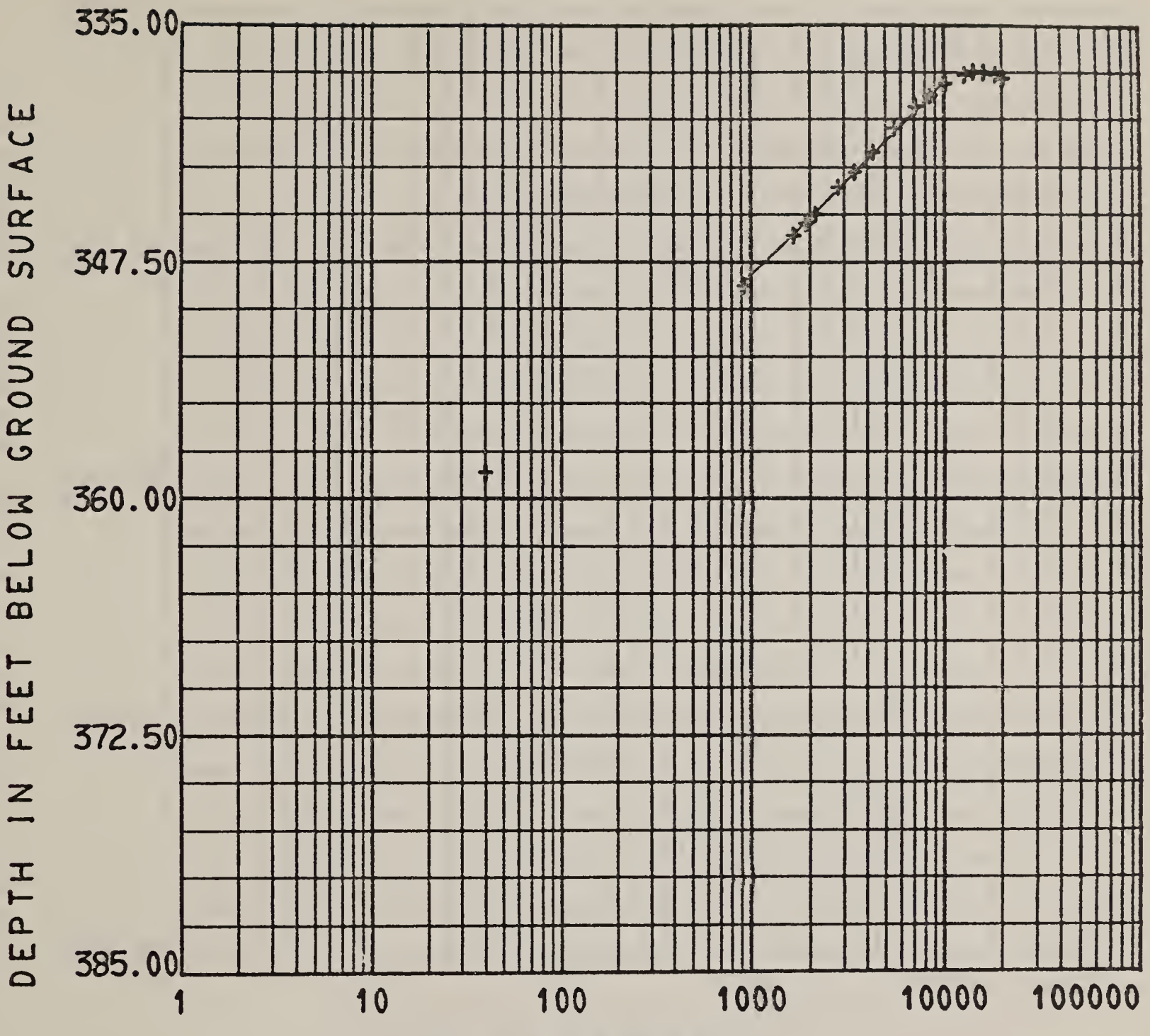
TO-2 GS-17 LOWR DRAWDOWN



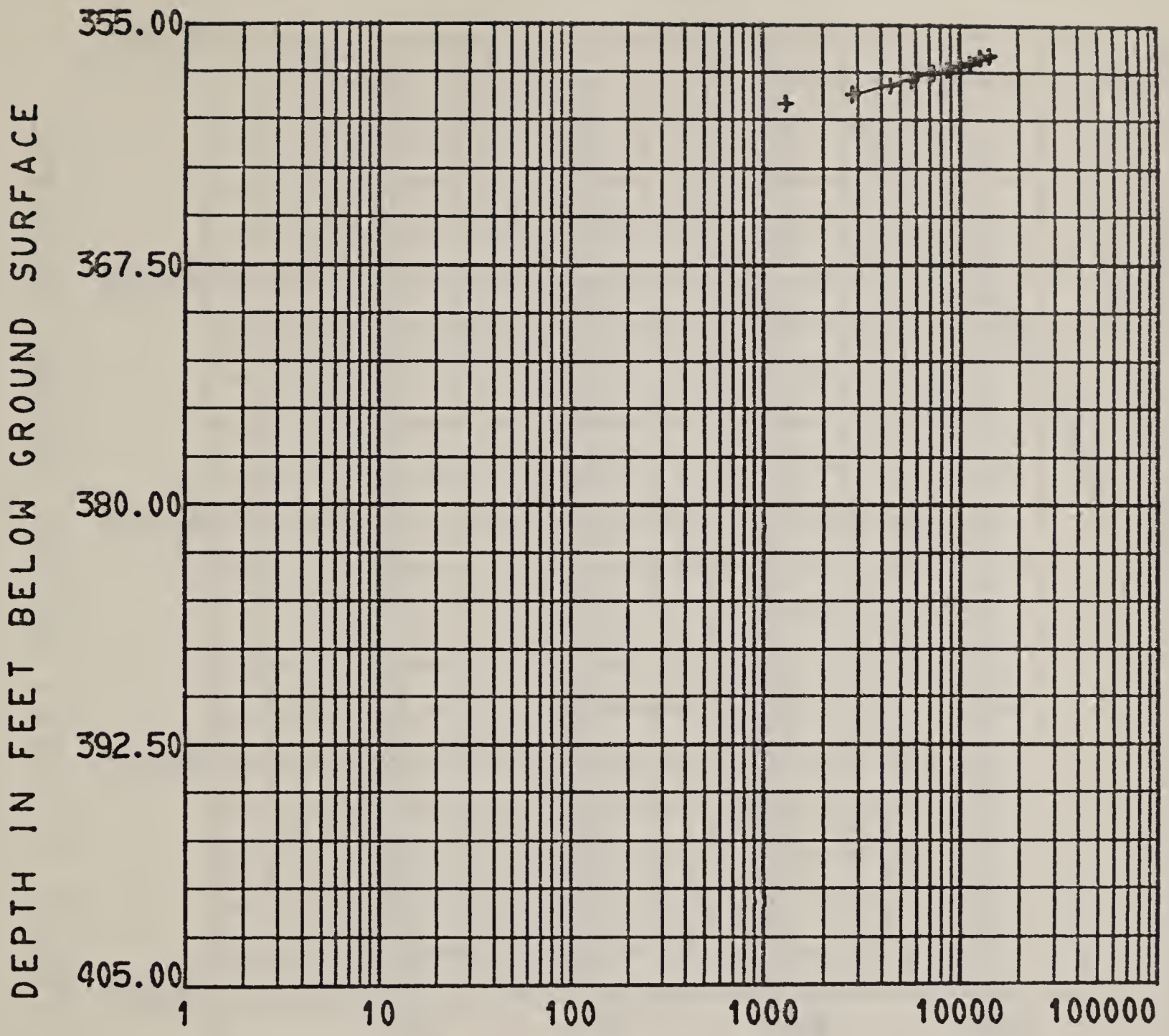
TO-2 GS-17 LOWR RECOVERY



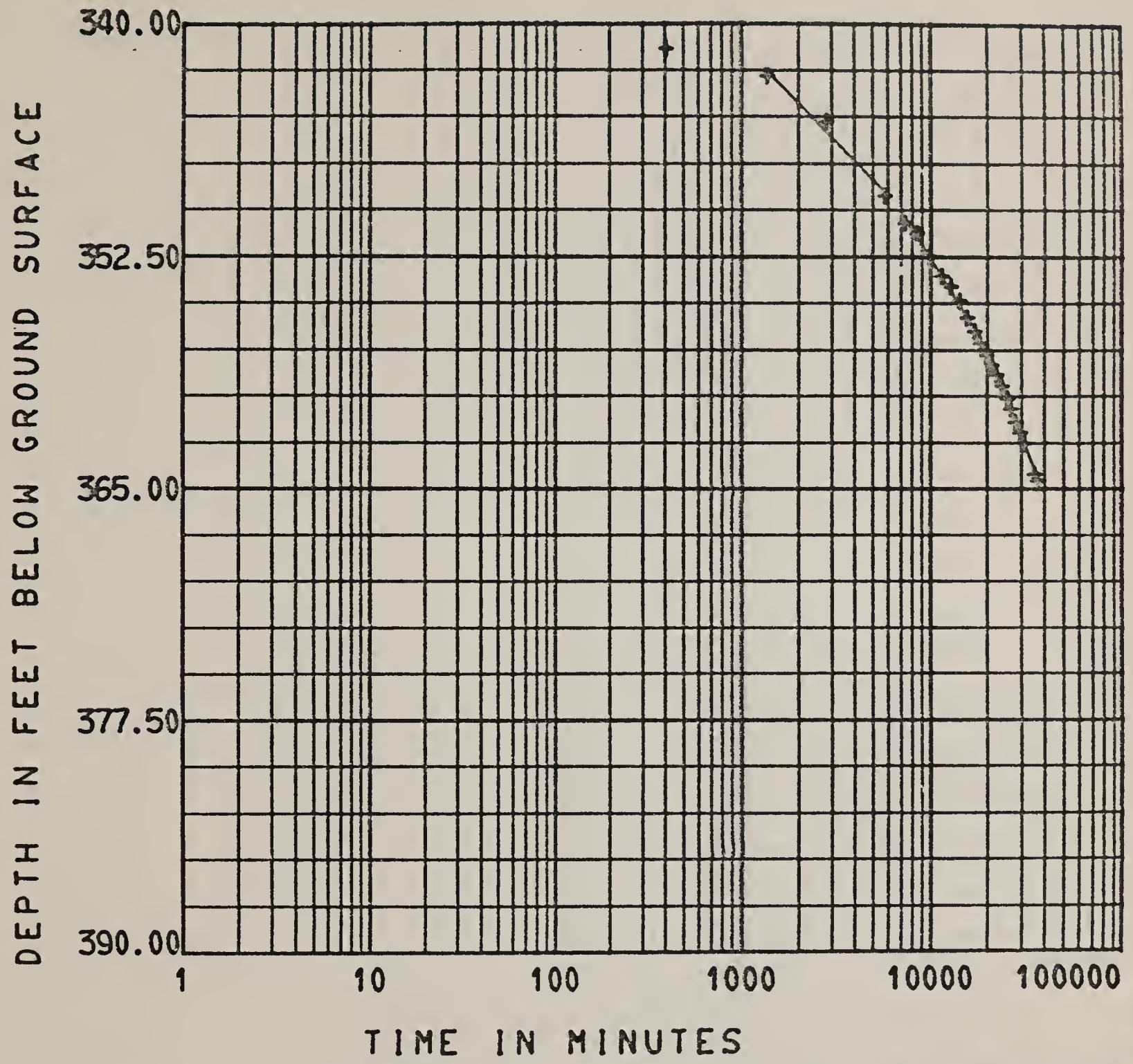
TO-2 GS-17 LOWR DRAWDOWN



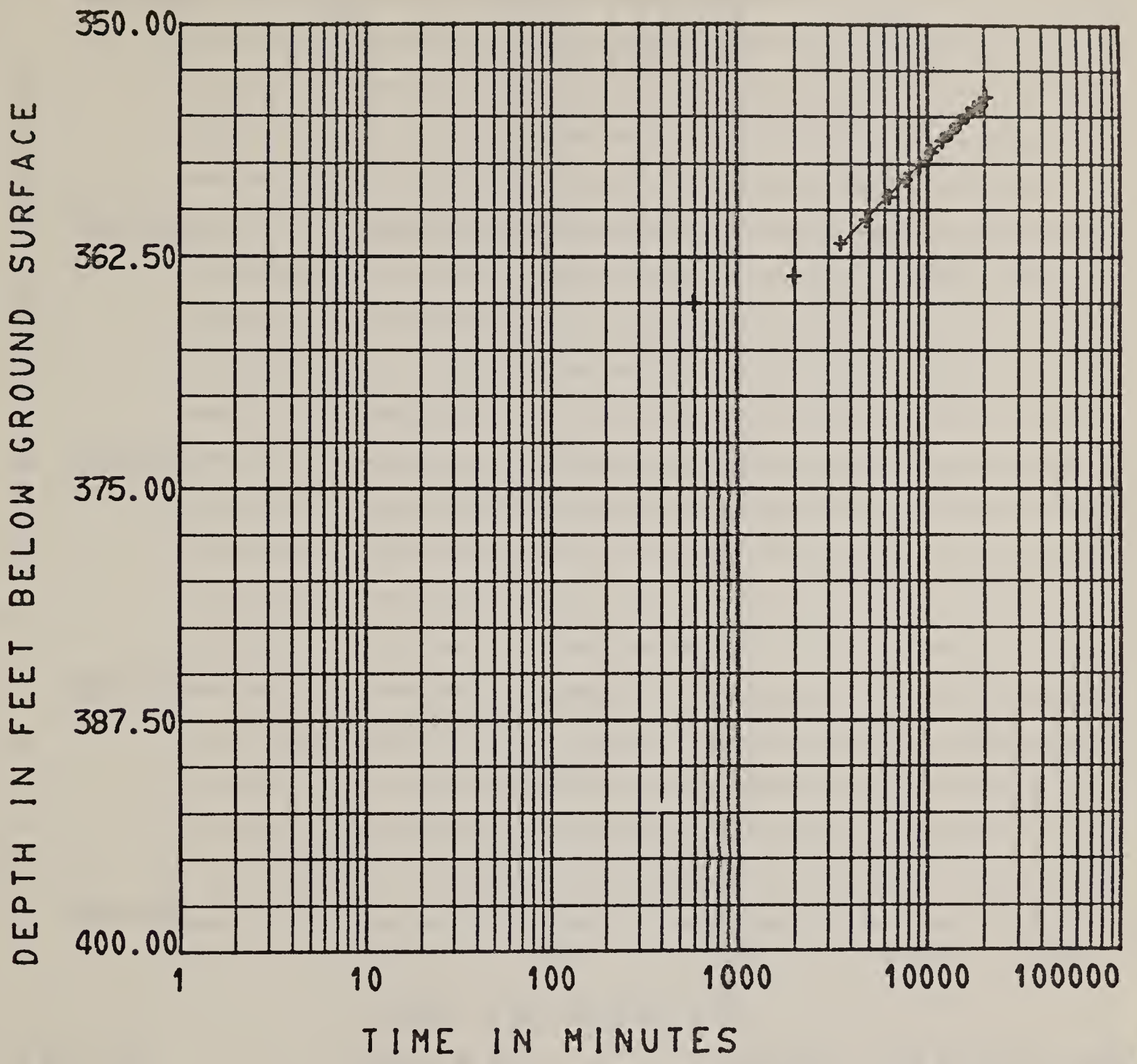
TO-2 GS-17 LOWR RECOVERY



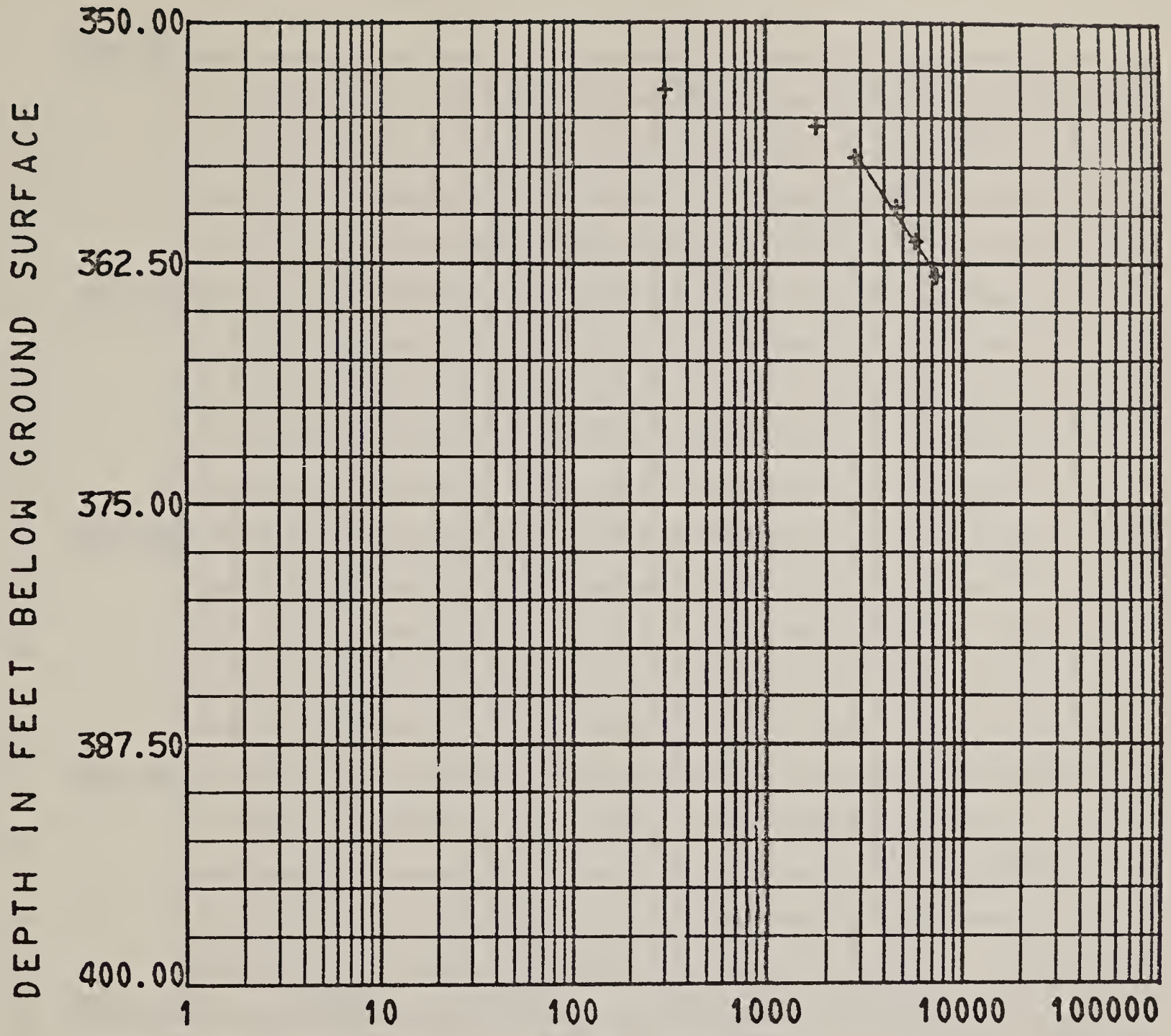
TO-2 GS-18 LOWR RECOVERY



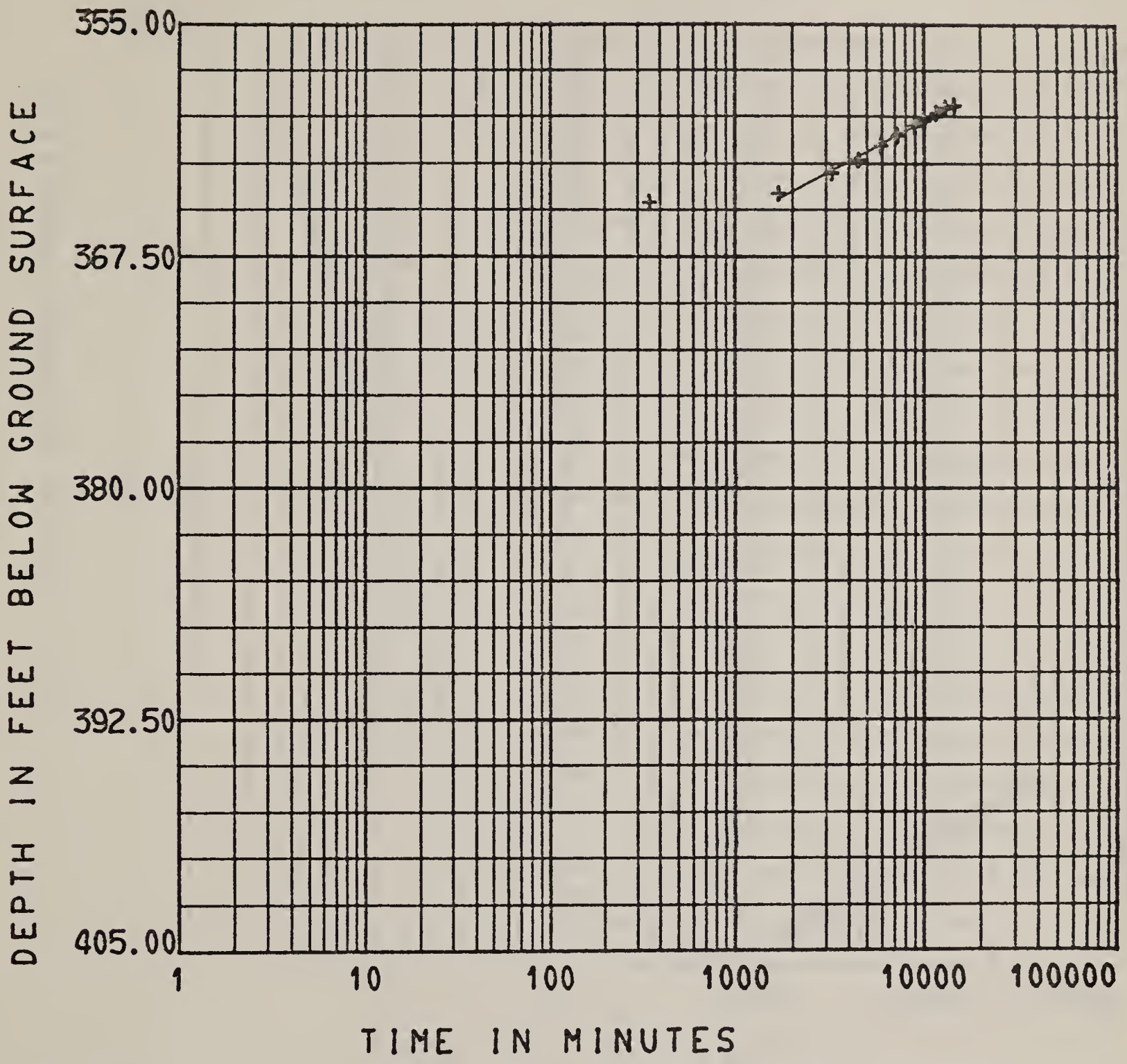
TO-2 GS-19 LOWR DRAWDOWN



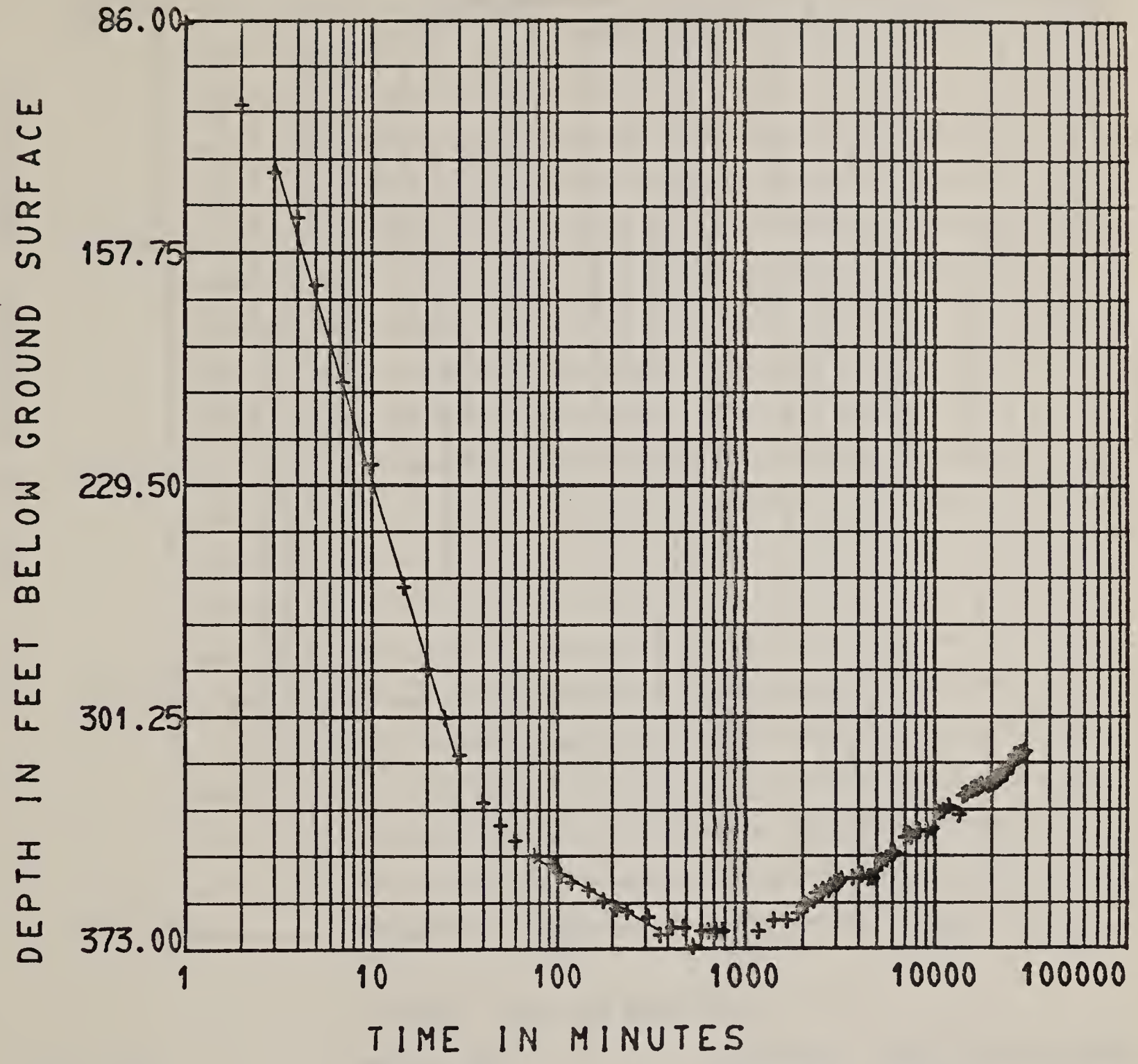
TO-2 GS-19 LOWR RECOVERY



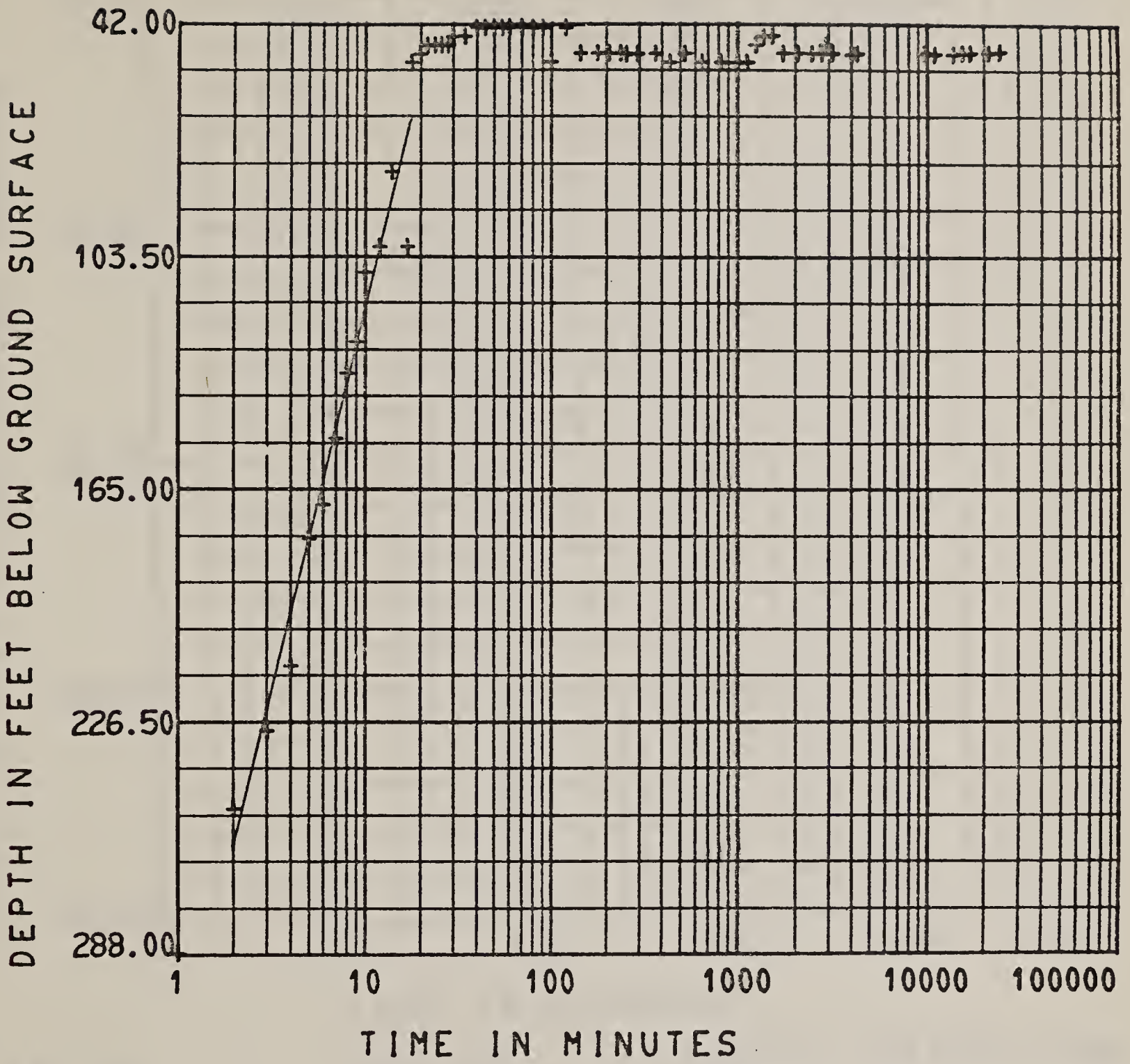
TO-2 GS-19 LOWR DRAWDOWN



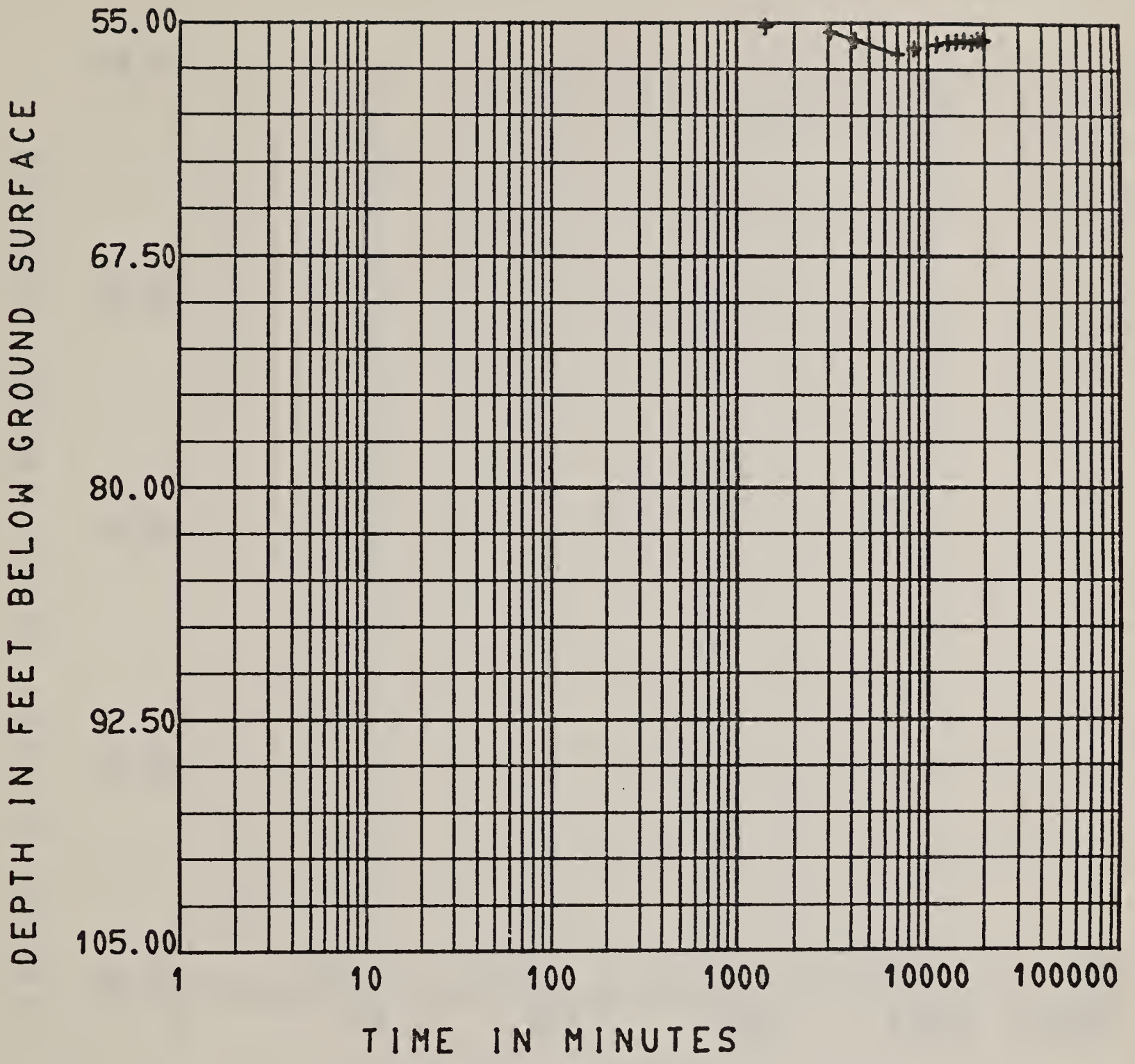
TO-2 GS-19 LOWR RECOVERY



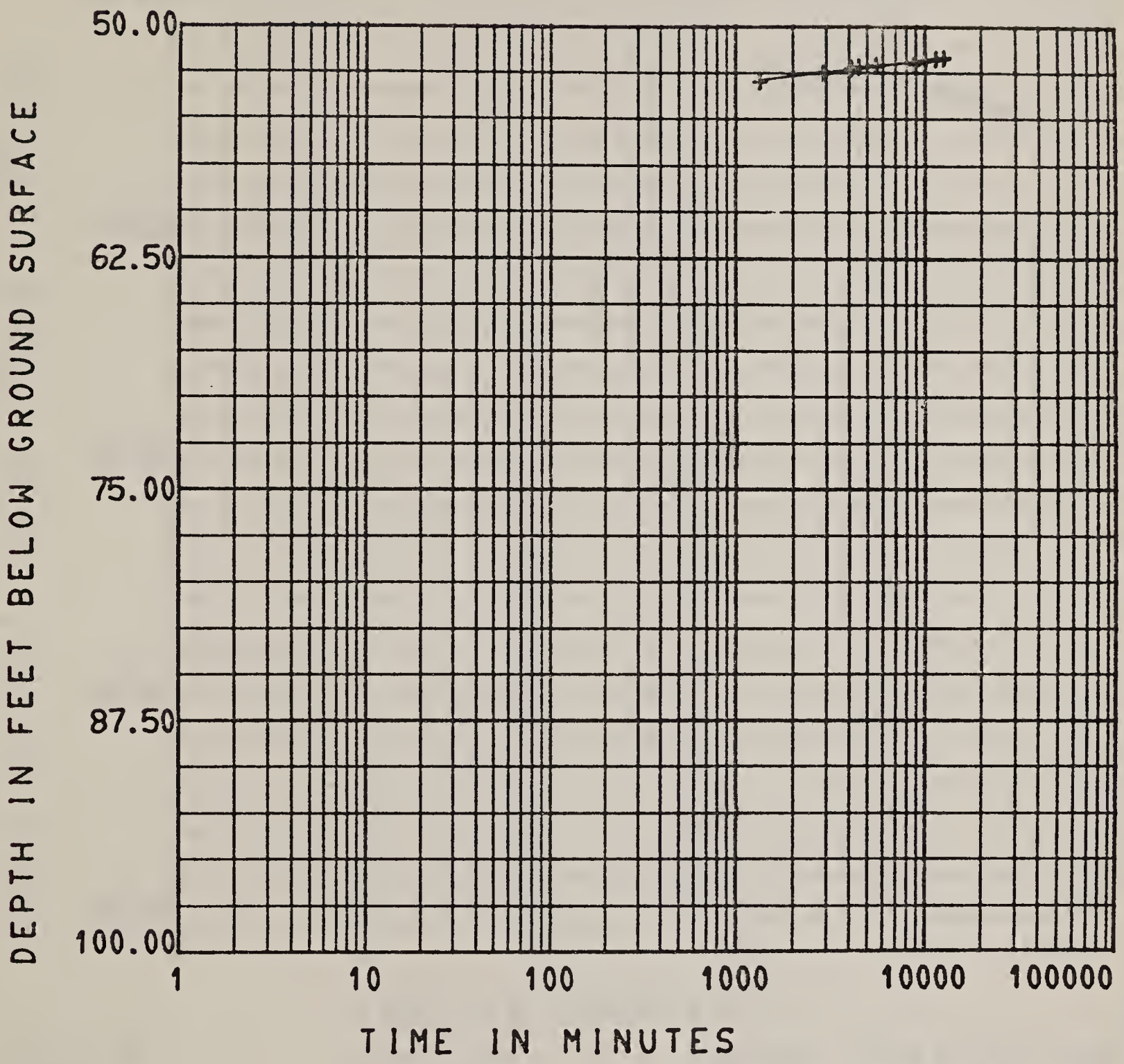
TO-3 TO-3 UPPR DRAWDOWN



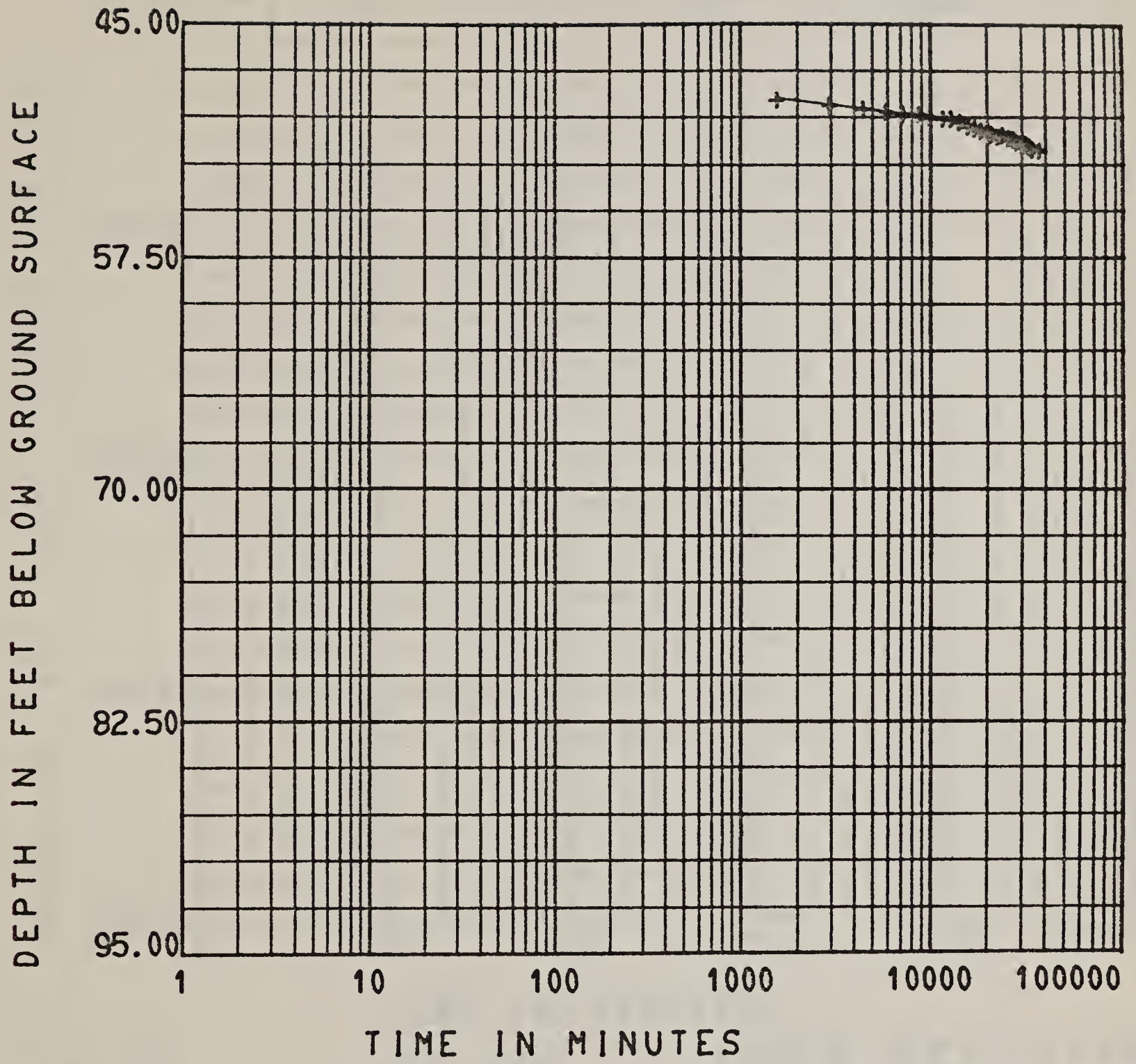
TO-3 TO-3 UPPR RECOVERY



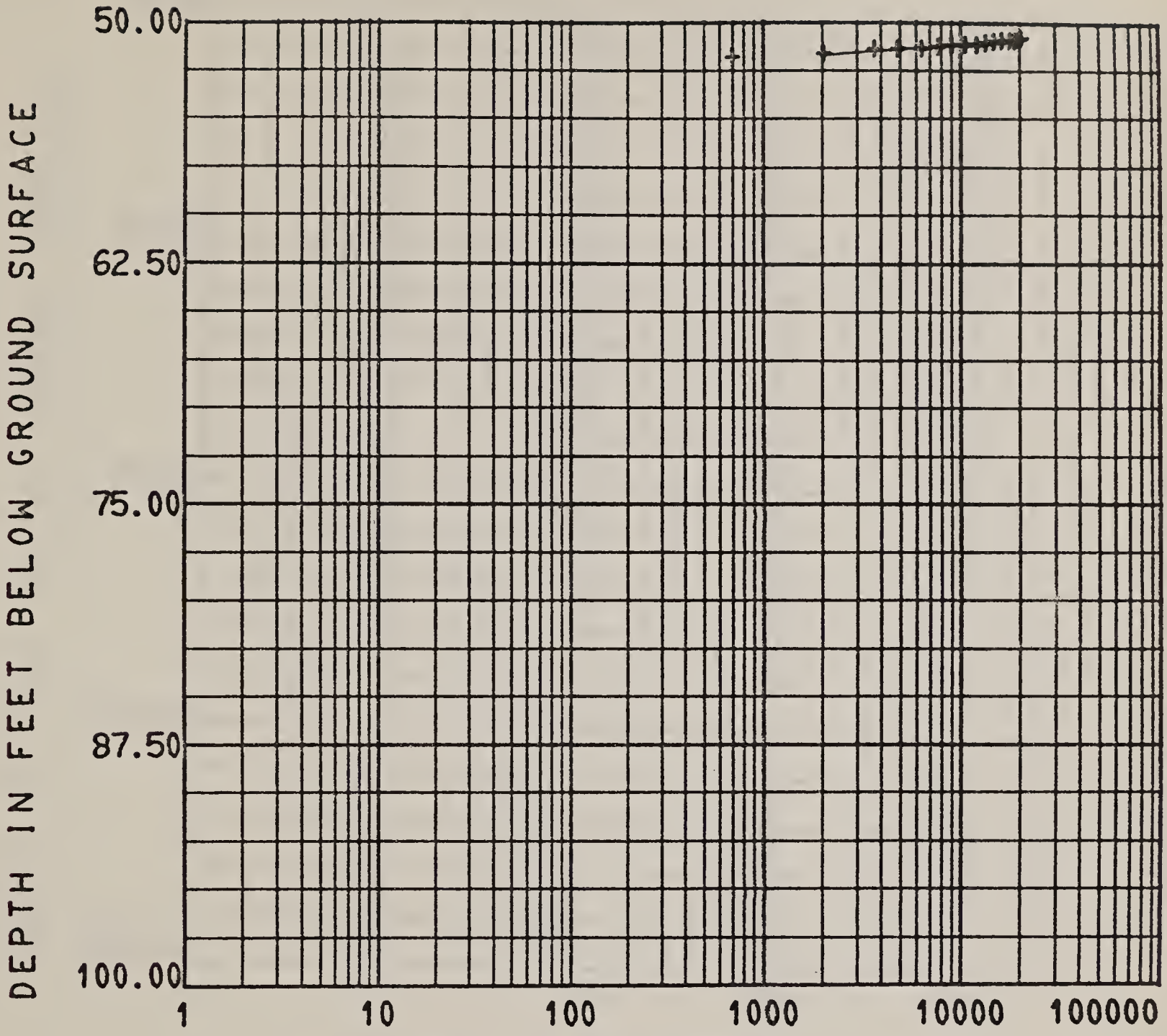
TO-3 GS-18 UPPR DRAWDOWN



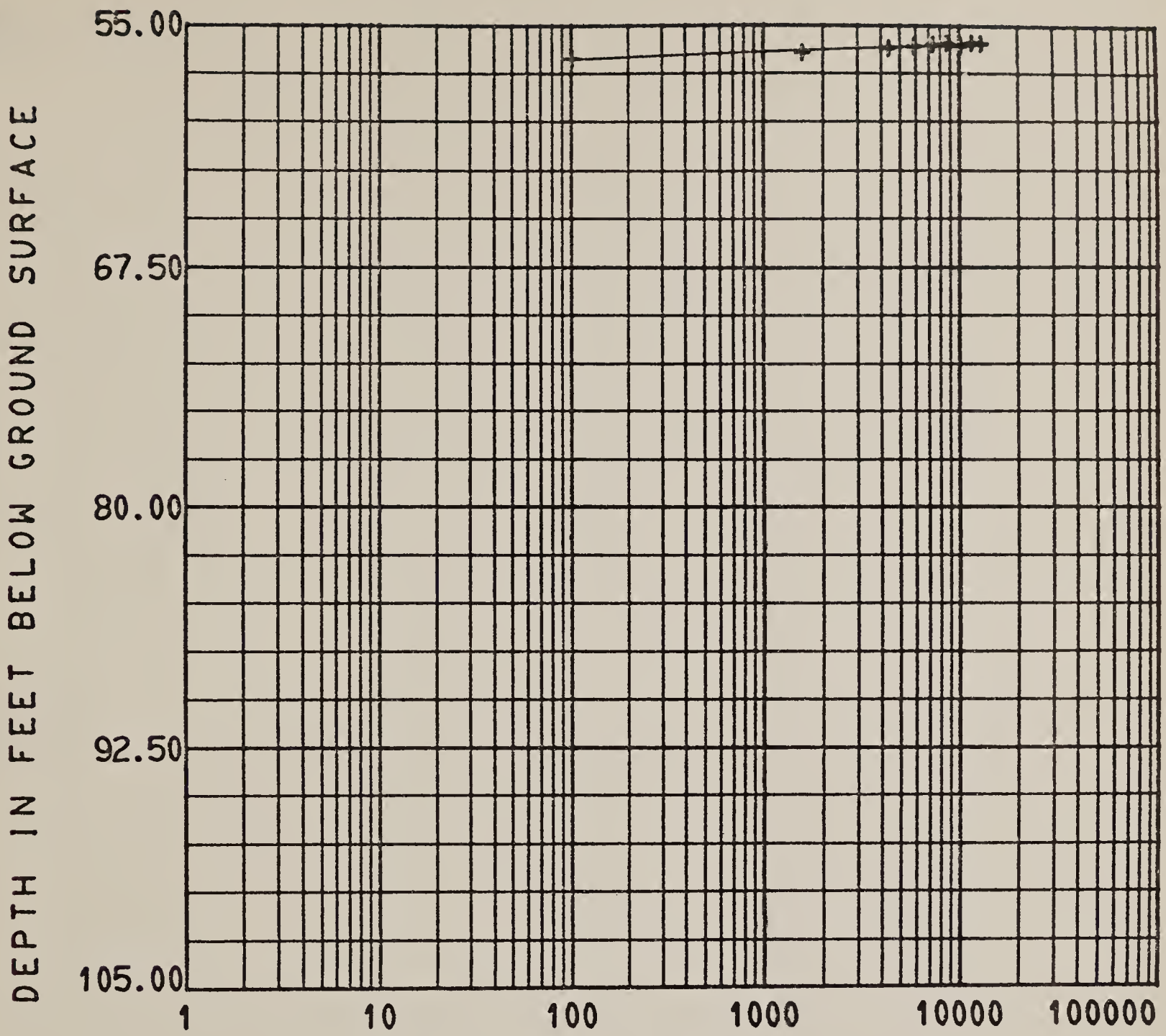
TO-3 GS-18 UPPR RECOVERY



TO-3 GS-19 UPPR DRAWDOWN



TO-3 GS-19 UPPR RECOVERY



TO-3 GS-19 UPPR RECOVERY